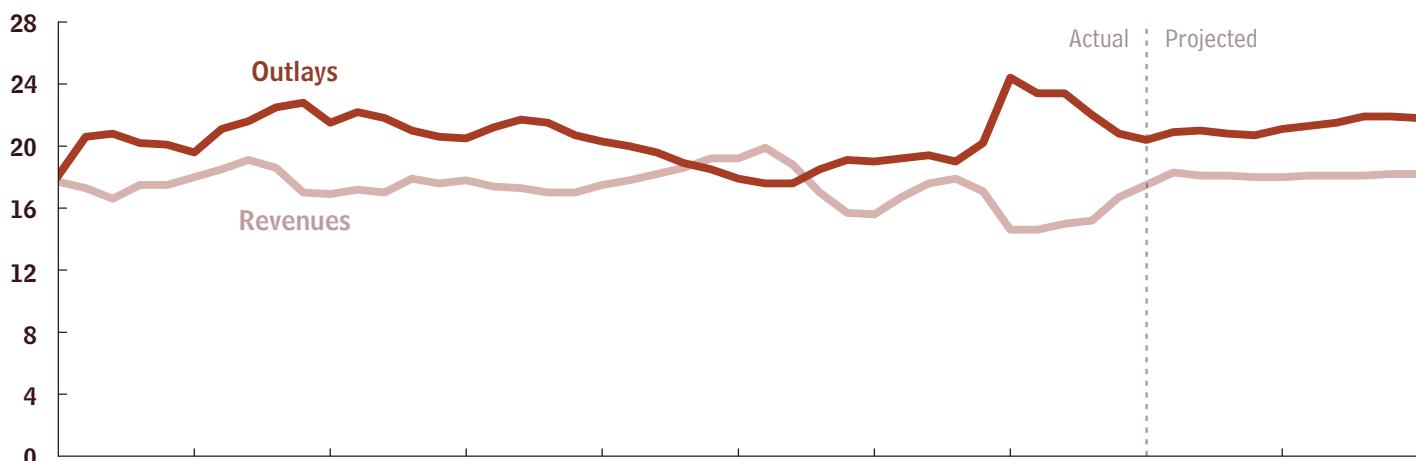


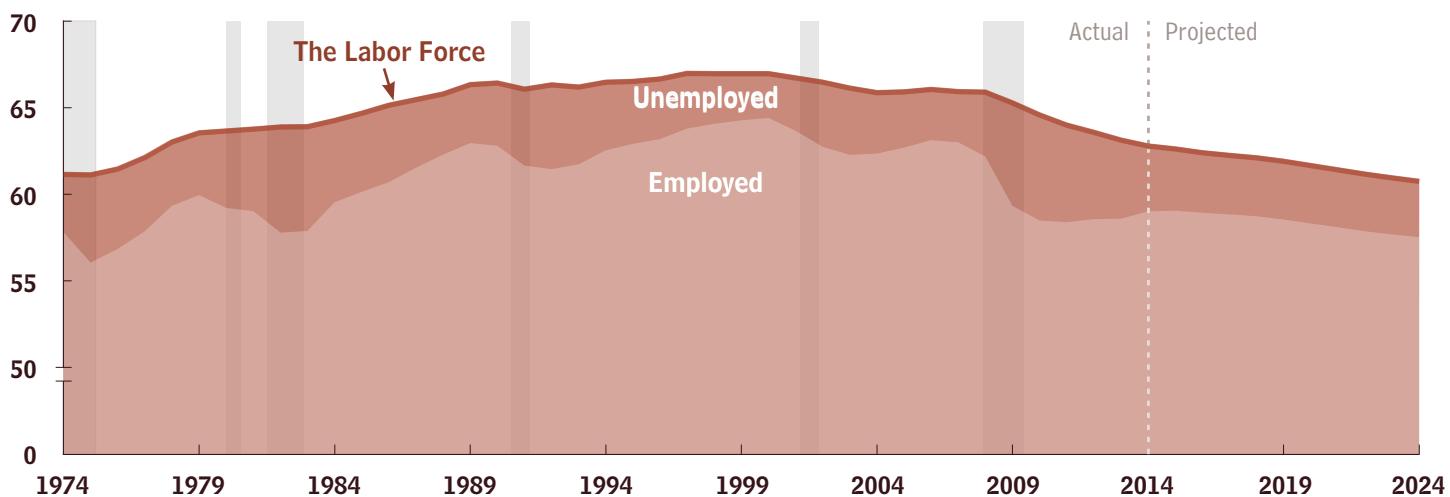
# CBO

An Update to the  
Budget and  
Economic Outlook:  
2014 to 2024

Percentage of GDP



Percentage of the Population



AUGUST 2014

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## Notes

Unless otherwise indicated, all years referred to in describing the budget outlook are federal fiscal years (which run from October 1 to September 30), and years referred to in describing the economic outlook are calendar years.

Numbers in the text and tables may not add up to totals because of rounding. Also, some values are expressed as fractions to indicate numbers rounded to amounts greater than a tenth of a percentage point.

Some figures in this report have vertical bars that indicate the duration of recessions.  
(A recession extends from the peak of a business cycle to its trough.)

The economic forecast was completed in early July, and, unless otherwise indicated, estimates presented in Chapter 2 and Appendix B of this report are based on information available at that time.

As referred to in this report, the Affordable Care Act comprises the Patient Protection and Affordable Care Act (Public Law 111-148), the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), and the effects of subsequent judicial decisions, statutory changes, and administrative actions.

Supplemental data for this analysis are available on CBO’s website ([www.cbo.gov/publication/45653](http://www.cbo.gov/publication/45653)), as is a glossary of common budgetary and economic terms ([www.cbo.gov/publication/42904](http://www.cbo.gov/publication/42904)).

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## Summary

The federal budget deficit has fallen sharply during the past few years, and it is on a path to decline further this year and next year. However, later in the coming decade, if current laws governing federal taxes and spending generally remained unchanged, revenues would grow only slightly faster than the economy and spending would increase more rapidly, according to the Congressional Budget Office's (CBO's) projections. Consequently, relative to the size of the economy, deficits would grow and federal debt would climb.

CBO's budget projections are built upon its economic forecast, which anticipates that the economy will grow slowly this year, on balance, and then at a faster but still moderate pace over the next few years. The gap between the nation's output and its potential (maximum sustainable) output will narrow to its historical average by the end of 2017, CBO expects, largely eliminating the underutilization of labor that currently exists. As the economy strengthens over the next few years, inflation is expected to remain below the Federal Reserve's goal, and interest rates on Treasury securities, which have been exceptionally low since the recession, are projected to rise considerably.

### **The Budget Deficit Continues to Shrink in 2014, but Federal Debt Is Still Growing**

The federal budget deficit for fiscal year 2014 will amount to \$506 billion, CBO estimates, roughly \$170 billion lower than the shortfall recorded in 2013. At 2.9 percent of gross domestic product (GDP), this year's deficit will be much smaller than those of recent years (which reached almost 10 percent of GDP in 2009) and slightly below the average of federal deficits over the past 40 years. However, by CBO's estimates, federal debt held by the public will reach 74 percent of GDP at the end of this fiscal year—more than twice what it

was at the end of 2007 and higher than in any year since 1950.

#### **Outlays**

Spending is expected to rise by about 2 percent this year, to \$3.5 trillion (see Summary Table 1). Outlays for mandatory programs, which are governed by statutory criteria and not normally controlled by the annual appropriation process, are projected to rise by about 4 percent. That increase reflects growth in some of the largest programs—including a 15 percent increase in spending for Medicaid and a roughly 5 percent increase in spending for Social Security. In contrast, CBO estimates, net spending for Medicare will increase by only 2 percent in 2014, and spending for some mandatory programs will fall; in particular, outlays for unemployment compensation are expected to drop by nearly 40 percent, primarily because the authority to pay emergency benefits expired at the end of December 2013.

Discretionary spending, which is controlled by annual appropriation acts, is anticipated to be 3 percent less in 2014 than it was in 2013. Nondefense discretionary spending is expected to be about the same this year as it was last year, but defense spending is likely to drop by about 5 percent.

The government's net interest costs will rise by nearly 5 percent this year, CBO estimates, the result of the continued accumulation of debt and higher inflation (which has boosted the cost of the Treasury's inflation-protected securities).

#### **Revenues**

Revenues are expected to increase by about 8 percent this year from last year's amounts, to \$3.0 trillion. Revenues from all major sources will rise this year, including individual income taxes (by an estimated 6 percent); payroll taxes (by 8 percent); and corporate income taxes (by

**Summary Table 1.****Deficits Projected in CBO's Baseline**

	Actual,												Total	
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2015-	2015-
Revenues	2,775	3,006	3,281	3,423	3,605	3,748	3,908	4,083	4,257	4,446	4,644	4,850	17,965	40,243
Outlays	3,455	3,512	3,750	3,979	4,135	4,308	4,569	4,820	5,076	5,391	5,601	5,810	20,741	47,439
<b>Total Deficit</b>	<b>-680</b>	<b>-506</b>	<b>-469</b>	<b>-556</b>	<b>-530</b>	<b>-560</b>	<b>-661</b>	<b>-737</b>	<b>-820</b>	<b>-946</b>	<b>-957</b>	<b>-960</b>	<b>-2,777</b>	<b>-7,196</b>
Net Interest	221	231	251	287	340	412	492	566	627	687	746	799	1,782	5,207
Primary Deficit <sup>a</sup>	-459	-275	-218	-269	-190	-148	-169	-170	-193	-259	-211	-161	-995	-1,989
<b>Memorandum (As a percentage of GDP):</b>														
Total Deficit	-4.1	-2.9	-2.6	-2.9	-2.7	-2.7	-3.0	-3.3	-3.5	-3.8	-3.7	-3.6	-2.8	-3.2
Primary Deficit <sup>a</sup>	-2.8	-1.6	-1.2	-1.4	-1.0	-0.7	-0.8	-0.8	-0.8	-1.1	-0.8	-0.6	-1.0	-0.9
Debt Held by the Public at the End of the Year	72.0	74.4	74.0	73.6	73.0	72.8	73.1	73.6	74.3	75.4	76.4	77.2	n.a.	n.a.

Source: Congressional Budget Office.

Note: GDP = gross domestic product; n.a. = not applicable.

a. Excludes net interest.

15 percent). Increases in wages and salaries and changes in laws—such as those affecting payroll tax rates and income tax deductions for investments in business equipment—largely account for the higher tax receipts. In addition, remittances to the Treasury from the Federal Reserve are anticipated to rise by 33 percent this year, owing to increases in both the size of the Federal Reserve's portfolio of securities and the return on that portfolio.

## Persistent Deficits Through 2024 Would Push Debt Relative to GDP Even Higher

CBO regularly produces projections of what federal spending, revenues, and deficits would look like over the next 10 years if current laws governing federal taxes and spending generally remained unchanged. Those baseline projections are designed to serve as a benchmark that policymakers can use when considering possible changes to those laws. According to CBO's updated projections, under current law, the annual deficit would remain less than 3 percent of GDP through 2018, but would grow thereafter, reaching nearly 4 percent from 2022 through 2024. (In contrast, over the past 40 years, deficits averaged 3.1 percent of GDP.)

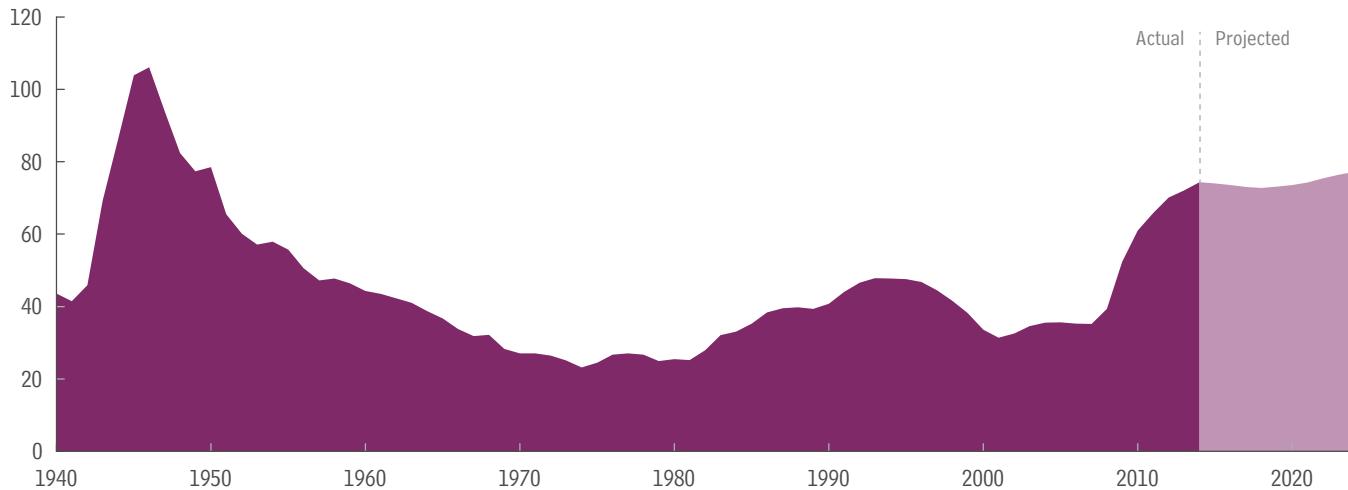
The persistent and growing deficits that CBO projects would result in increasing amounts of federal debt held by the public. In CBO's baseline projections, that debt rises from 74 percent of GDP this year to 77 percent of GDP in 2024. As recently as 2007, federal debt equaled 35 percent of GDP, but the very large deficits of the past several years caused debt to surge (see Summary Figure 1).

The large and increasing amount of federal debt would have serious negative consequences, including the following:

- Increasing federal spending for interest payments,
- Restraining economic growth in the long term,
- Giving policymakers less flexibility to respond to unexpected challenges, and
- Eventually increasing the risk of a fiscal crisis (in which investors would demand high interest rates to buy the government's debt).

**Summary Figure 1.****Federal Debt Held by the Public**

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

**Outlays**

Between 2014 and 2024, annual outlays are projected to grow, on net, by \$2.3 trillion, reflecting an average annual increase of 5.2 percent. Boosted by the aging of the population, the expansion of federal subsidies for health insurance, rising health care costs per beneficiary, and mounting interest costs on federal debt, spending for the three fastest-growing components of the budget accounts for 85 percent of the total projected increase in outlays over the next 10 years:

- Annual spending for Social Security is projected to grow by almost 80 percent. Under current law, outlays for that program would climb from 4.9 percent of GDP this year to 5.6 percent in 2024, according to CBO's estimates.
- Annual net outlays for the government's major health care programs (Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges) are projected to rise by more than 85 percent. Outlays for those programs would grow from 4.9 percent of GDP to 5.9 percent, CBO anticipates.
- Outlays for net interest in 2024 are projected to be more than triple those in 2014—the result of both projected growth in federal debt and a rise in interest rates. Net interest outlays would rise from 1.3 percent

of GDP this year to 3.0 percent by the end of the coming decade, CBO expects.

In contrast, taken together, all other spending is projected to grow by only about 20 percent. Relative to GDP, such spending would fall—from 9.3 percent this year to 7.3 percent by 2024, its lowest percentage since 1940 (the earliest year for which comparable data have been reported).

Total outlays in the baseline amount to 20.4 percent of GDP in 2014, hover around 21 percent (their average for the past 40 years) from 2015 through 2020, and then rise to about 22 percent from 2022 through 2024. In CBO's projections, both net interest and mandatory spending grow relative to GDP from 2014 to 2024, by 1.7 percent and 1.4 percent, respectively; discretionary spending falls by 1.6 percent of GDP over that period.

**Revenues**

Revenues are projected to grow by \$1.8 trillion between 2014 and 2024, or at an annual rate of 4.9 percent. Provisions of law that have recently taken effect (such as the expiration of certain tax provisions) and, to a lesser extent, the ongoing economic expansion mostly explain a projected jump in federal revenues from this year to next, from 17.5 percent of GDP to 18.3 percent. Greater receipts from individual income taxes (up from 8.1 percent of GDP in 2014 to 8.5 percent in 2015) and

corporate income taxes (rising from 1.8 percent of GDP to 2.2 percent) largely account for that increase.

From 2015 through 2024, in CBO's baseline, total revenues change little relative to GDP—amounting to between 18.0 percent and 18.3 percent in each year—because of offsetting factors. Under current law, individual income tax receipts would rise by nearly 1 percent of GDP between 2015 and 2024, reaching 9.4 percent; that increase would occur mainly because a greater proportion of income would fall into higher income tax brackets, a result of tax brackets being indexed for inflation but not for growth in real income. But that rise would be offset both by a decline in corporate income taxes, which are projected to fall to 1.8 percent of GDP in 2024 (mostly because of an expected drop in domestic profits relative to the size of the economy), and by smaller remittances from the Federal Reserve.

### Changes From CBO's Previous Budget Projections

The deficit that CBO now estimates for 2014 is a bit larger than the \$492 billion the agency projected in April.<sup>1</sup> CBO's estimate of revenues dropped by \$26 billion from the April projection, mostly because of lower-than-anticipated receipts from corporate income taxes. CBO's estimate of outlays this year declined by \$11 billion, particularly because spending for Medicare and discretionary programs is now expected to be lower than the earlier estimates.

Deficits over the coming decade are now projected to total \$7.2 trillion—about \$400 billion less than the cumulative deficit CBO projected in April. Although revenues for that period are projected to be lower than the amounts that were previously estimated, projected outlays decline even more, largely because of lower anticipated interest costs.

### Economic Growth Will Pick Up in the Next Few Years and Moderate in Later Years

Real (inflation-adjusted) GDP grew at an annual rate of only 0.9 percent during the first half of this calendar year, but CBO expects stronger growth during the second half, in part because the effects of some restraining factors in

the first part of the year, such as bad weather, have abated and because recent data, particularly regarding employment, indicate that the economic expansion is on firmer ground. All told, real GDP will increase by 1.5 percent from the fourth quarter of 2013 through the fourth quarter of 2014, CBO estimates.

CBO projects that the growth of real GDP will pick up after this year, to an annual average rate of 3.4 percent from 2014 through 2016 (see Summary Figure 2). CBO anticipates that growth over the next few years will be stronger than growth this year for three main reasons:

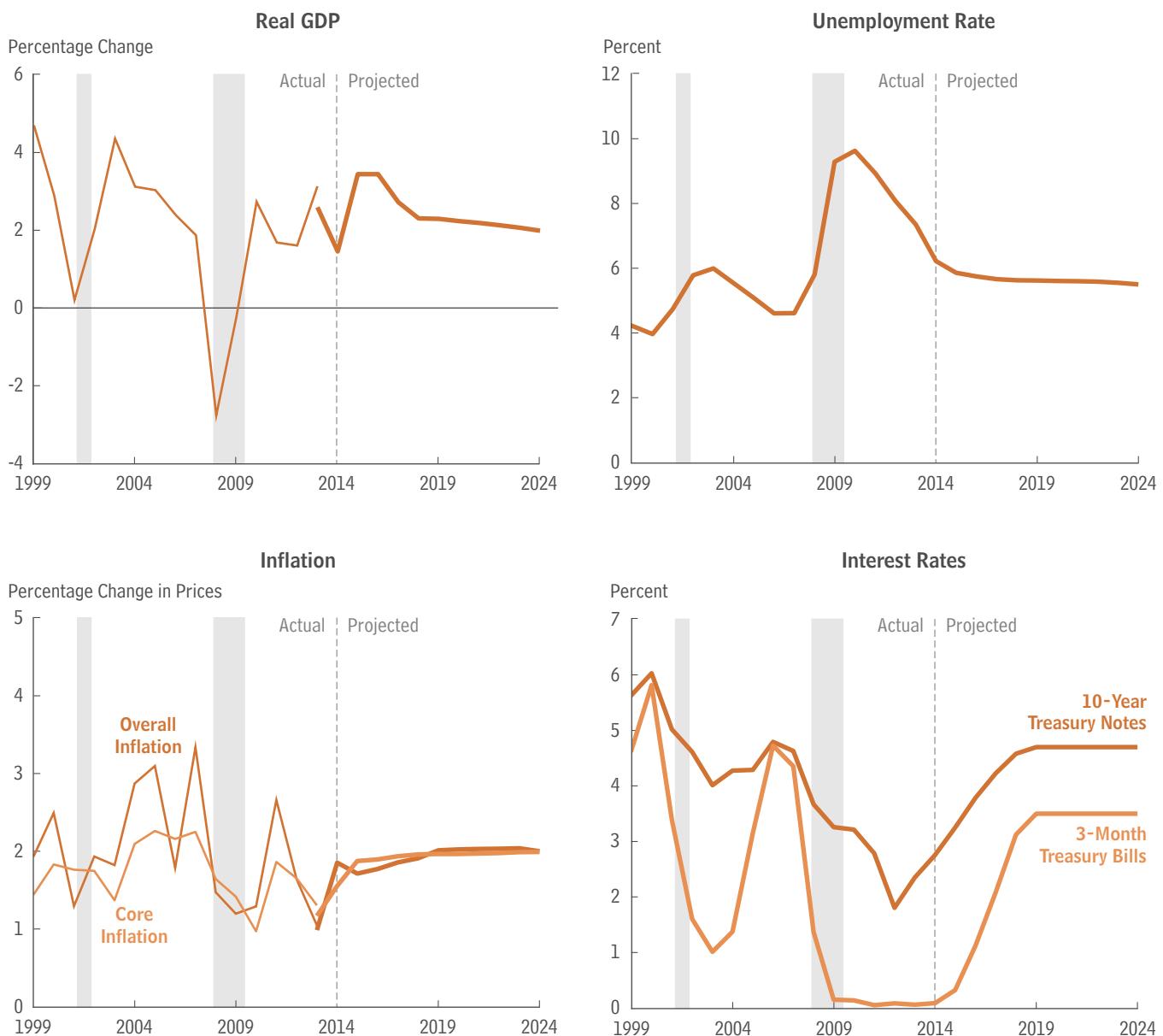
- In response to increased demand for their goods and services, businesses will increase their investments in new structures and equipment at a faster pace and will continue to expand their workforces.
- Consumer spending will also grow more rapidly, spurred by recent gains in household wealth and—with an improving labor market—gains in labor income.
- Fewer vacant housing units, more rapid formation of new households, and further improvement in mortgage markets will lead to larger increases in home building.

### The Degree of Slack in the Economy Over the Next Few Years

The faster growth of output will reduce the amount of underutilized productive resources—or “slack”—in the economy over the next few years. CBO estimates that GDP was about 4 percent less than its potential value at the end of last year, but by the end of 2017, that shortfall is expected to narrow to its historical average, which is about  $\frac{1}{2}$  percent.

Similarly, the slack in the labor market—reflected in both an elevated unemployment rate and temporary weakness in people's participation in the labor force because of limited job prospects—is expected to largely disappear by the end of 2017. CBO projects that increased hiring will bring the unemployment rate closer to the agency's estimate of the natural rate of unemployment (that is, the rate arising from all sources except fluctuations in the overall demand for goods and services)—reducing it from 6.2 percent in the second quarter of 2014 to 5.6 percent in the fourth quarter of 2017. CBO also expects that the

1. See Congressional Budget Office, *Updated Budget Projections: 2014 to 2024* (April 2014), [www.cbo.gov/publication/45229](http://www.cbo.gov/publication/45229).

**Summary Figure 2.****Actual Values and CBO's Projections of Key Economic Indicators**

Sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve.

Notes: Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation. The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Data are annual. For real GDP and inflation, values from 1999 through 2013 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014. Values from 2013 through 2024 (the thick lines) reflect the data available and projections made before July 30. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

greater hiring will encourage some people to reenter the labor force, slowing both the decline in the unemployment rate and the decline in labor force participation that would result from underlying demographic trends and federal policies by themselves. Nonetheless, CBO anticipates that the labor force participation rate (the percentage of people in the civilian noninstitutionalized population who are age 16 or older and are either working or actively seeking work) will decline slightly—from 62.8 percent in the second quarter of 2014 to 62.3 percent in the fourth quarter of 2017.

### **Inflation and Interest Rates Over the Next Few Years**

Reduced slack in the economy will remove some of the downward pressure on the rate of inflation and interest rates that has existed in the past several years. However, with some slack remaining and with widely held expectations for low inflation, CBO anticipates that the rate of inflation, as measured by the price index for personal consumption expenditures (PCE), will remain below the Federal Reserve’s goal of 2 percent during the next few years.

By CBO’s estimates, the interest rate on 3-month Treasury bills will remain near zero until the second half of 2015 and then rise to an average of 2.1 percent in 2017; the rate on 10-year Treasury notes is projected to rise from an average of 2.4 percent last year to 4.2 percent in 2017.

### **The Economic Outlook for 2018 and Later Years**

CBO’s forecast for 2018 and later years is not based on projections of cyclical developments in the economy, because the agency does not attempt to predict economic fluctuations that far into the future. Instead, the forecast is based on projections of underlying factors that affect the economy’s productive capacity.

In CBO’s projections, real GDP grows by 2.2 percent per year, on average, between 2018 and 2024—a rate that matches the agency’s estimate of the growth of potential output in those years but is notably less than the average growth of potential output during the 1980s and 1990s. That difference largely reflects the retirement of members of the baby-boom generation as well as a relatively stable labor force participation rate among working-age women (after decades of strong increases) and the effects of federal tax and spending policies embodied in current law. In addition, the lingering effects of the recent recession and slow recovery are expected to cause the level of GDP to be lower during the 2018–2024 period than it otherwise would be.

Between 2018 and 2024, by CBO’s estimates, the unemployment rate will average 5.6 percent (falling slightly over the period, from 5.6 percent to 5.5 percent), and inflation (as measured by the PCE price index) will average 2.0 percent. The interest rate on 3-month Treasury bills will average 3.4 percent during that period, and the rate on 10-year Treasury notes will average 4.7 percent, according to CBO’s projections.

### **Changes From CBO’s Previous Economic Projections**

CBO’s current economic projections differ in some respects from the ones issued in February 2014.<sup>2</sup> The agency has significantly lowered its projection of growth in real GDP for 2014, reflecting surprising economic weakness in the first half of the year. However, the level of real GDP over most of the coming decade is projected to be only modestly lower than estimated in February. In addition, CBO now anticipates lower interest rates throughout the projection period and a lower unemployment rate for the next six years.

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2. See Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024* (February 2014), [www.cbo.gov/publication/45010](http://www.cbo.gov/publication/45010).

## The Budget Outlook

T

he Congressional Budget Office (CBO) estimates that the budget deficit in fiscal year 2014 will total \$506 billion, up from the \$492 billion the agency estimated in April.<sup>1</sup> Relative to the size of the economy, this year's deficit—at 2.9 percent of gross domestic product (GDP)—will be slightly below the average experienced over the past 40 years, and 2014 will mark the fifth consecutive year in which the deficit has declined as a percentage of GDP since peaking at 9.8 percent in 2009 (see Figure 1-1). Nevertheless, measured relative to the size of the economy, debt held by the public will increase for the seventh year in a row, reaching 74 percent of GDP by the end of 2014, the highest ratio since 1950.

As specified in law, CBO constructs its baseline projections of federal revenues and spending under the assumption that current laws will generally remain unchanged. If that was to occur, the period of shrinking deficits would soon come to an end. Between 2015 and 2024, annual budget shortfalls are projected to rise substantially—from a low of \$469 billion in 2015 to \$960 billion in 2024—mainly because of significant growth in spending on retirement and health care programs caused by the aging of the population, rising per capita health care costs, and an expansion of federal subsidies for health insurance, and because of growing interest payments on federal debt. CBO expects that deficits during that decade would total \$7.2 trillion if current laws remained unchanged (see Table 1-1).

As a percentage of GDP, deficits are projected to rise from 2.6 percent in 2015 to almost 4 percent near the end of the 10-year period. By comparison, the deficit averaged 3.1 percent of GDP between 1974 and 2013 and

2.3 percent in the 40 years before fiscal year 2008, when the most recent recession began. From 2015 through 2024, both revenues and outlays are projected to exceed their 40-year averages as measured relative to GDP (see Figure 1-2 on page 10).

In CBO's current baseline projections, federal debt held by the public reaches 77 percent of GDP by 2024, up from 72 percent at the end of 2013 and roughly twice the 39 percent average of the past four decades. As recently as the end of 2007, federal debt equaled just 35 percent of GDP.

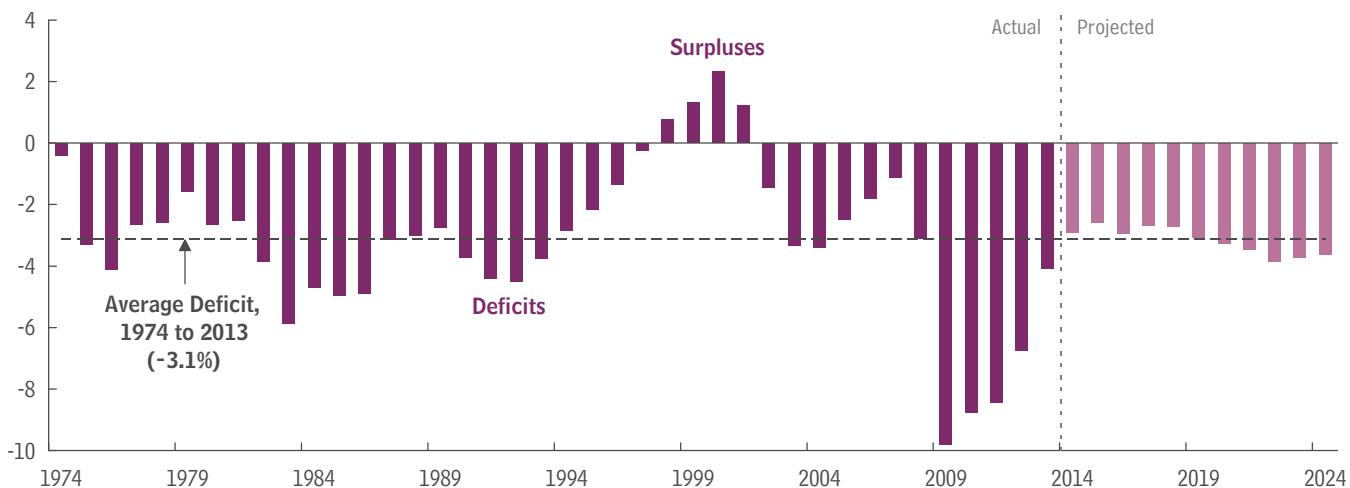
Such high and rising debt would have serious negative consequences for both the economy and the federal budget. When interest rates rise to more typical levels—as CBO expects to happen in the next few years—federal spending on interest payments will increase considerably. Moreover, when the federal government borrows, it increases the overall demand for funds, which generally raises the cost of borrowing and reduces lending to businesses and other entities; the eventual result would be a smaller stock of capital and lower output and income than would otherwise be the case, all else being equal. In addition, the large amount of debt might restrict policymakers' ability to use tax and spending policies to respond to unexpected challenges, such as economic downturns or financial crises. Finally, continued growth in the debt might lead investors to doubt the government's willingness or ability to pay its obligations, which would require the government to pay much higher interest rates on its borrowing.

Although CBO's current baseline projections show a slightly larger deficit for 2014 than the agency estimated in April, those new projections indicate smaller deficits over the 2015–2024 period. The projected deficit for this year is now \$14 billion larger than the projection made in

1. See Congressional Budget Office, *Updated Budget Projections: 2014 to 2024* (April 2014), [www.cbo.gov/publication/45229](http://www.cbo.gov/publication/45229).

**Figure 1-1.****Total Deficits or Surpluses**

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

April; CBO's estimates of outlays (primarily for Medicare and discretionary programs) declined, but its estimate of revenues dropped more. The projected cumulative deficit from 2015 through 2024 is \$422 billion less than it was in April. Though revenues for that period are projected to be lower than the amounts that were previously reported, projected outlays have declined even more, largely because of lower anticipated interest payments.

## The Budget Outlook for 2014

In the absence of additional legislation that would affect spending or revenues this fiscal year, the deficit in 2014 will be more than \$170 billion lower than the \$680 billion shortfall recorded in 2013, CBO estimates. The deficit will be smaller because revenues, which are expected to increase by about 8 percent, are growing much more rapidly this year than outlays, which CBO anticipates will increase by less than 2 percent. As a percentage of GDP, the 2014 deficit is projected to drop to 2.9 percent from last year's 4.1 percent.

### Outlays in 2014

Outlays are expected to increase by \$57 billion this year, to a total of \$3.5 trillion. CBO projects that spending will equal 20.4 percent of GDP—a drop from last year's 20.8 percent and roughly equal to the average experienced over the past 40 years:

- Mandatory spending is projected to rise both in nominal terms and as a share of GDP in 2014, reaching 12.3 percent.<sup>2</sup>
- Discretionary spending, by contrast, is expected to decline in nominal terms and to drop by 0.4 percent of GDP to 6.8 percent.<sup>3</sup>
- Outlays for net interest are projected to rise in nominal terms but to remain unchanged relative to the size of the economy, at 1.3 percent.

**Mandatory Spending.** Outlays for mandatory programs are projected to rise by \$79 billion, or 4 percent, this year to \$2.11 trillion (see Table 1-2 on page 12). Most mandatory spending consists of outlays for Social Security and the federal government's major health care programs—Medicare (net of premiums and other offsetting receipts), Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. By CBO's estimate, the largest increases in net outlays, compared with spending

2. Mandatory spending is governed by statutory criteria and is not normally controlled by the annual appropriation process.
3. Discretionary spending is controlled by annual appropriation acts in which policymakers specify how much money is to be provided for a broad array of government activities, including, for example, defense, law enforcement, and transportation.

**Table 1-1.****CBO's Baseline Budget Projections**

	Actual, 2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	2015- 2019	2015- 2024
													In Billions of Dollars		
<b>Revenues</b>															
Individual income taxes	1,316	1,390	1,526	1,623	1,735	1,835	1,931	2,035	2,142	2,254	2,371	2,493	8,649	19,944	
Payroll taxes	948	1,024	1,065	1,102	1,146	1,193	1,249	1,309	1,359	1,416	1,473	1,531	5,754	12,842	
Corporate income taxes	274	315	389	413	452	469	465	463	464	469	478	490	2,188	4,552	
Other	237	278	302	285	272	251	263	276	292	307	323	336	1,373	2,907	
<b>Total</b>	<b>2,775</b>	<b>3,006</b>	<b>3,281</b>	<b>3,423</b>	<b>3,605</b>	<b>3,748</b>	<b>3,908</b>	<b>4,083</b>	<b>4,257</b>	<b>4,446</b>	<b>4,644</b>	<b>4,850</b>	<b>17,965</b>	<b>40,243</b>	
On-budget	2,102	2,270	2,514	2,626	2,774	2,882	3,005	3,143	3,280	3,430	3,589	3,755	13,801	30,998	
Off-budget <sup>a</sup>	673	736	767	797	830	867	903	940	977	1,015	1,055	1,095	4,164	9,245	
<b>Outlays</b>															
Mandatory	2,032	2,110	2,312	2,500	2,601	2,689	2,840	2,989	3,159	3,378	3,504	3,634	12,941	29,604	
Discretionary	1,202	1,170	1,188	1,192	1,194	1,208	1,237	1,264	1,291	1,326	1,352	1,377	6,019	12,628	
Net interest	221	231	251	287	340	412	492	566	627	687	746	799	1,782	5,207	
<b>Total</b>	<b>3,455</b>	<b>3,512</b>	<b>3,750</b>	<b>3,979</b>	<b>4,135</b>	<b>4,308</b>	<b>4,569</b>	<b>4,820</b>	<b>5,076</b>	<b>5,391</b>	<b>5,601</b>	<b>5,810</b>	<b>20,741</b>	<b>47,439</b>	
On-budget	2,821	2,806	3,002	3,184	3,289	3,406	3,609	3,795	3,982	4,223	4,353	4,477	16,490	37,320	
Off-budget <sup>a</sup>	634	706	749	794	846	902	960	1,025	1,094	1,168	1,248	1,333	4,251	10,119	
<b>Deficit (-) or Surplus</b>	<b>-680</b>	<b>-506</b>	<b>-469</b>	<b>-556</b>	<b>-530</b>	<b>-560</b>	<b>-661</b>	<b>-737</b>	<b>-820</b>	<b>-946</b>	<b>-957</b>	<b>-960</b>	<b>-2,777</b>	<b>-7,196</b>	
On-budget	-719	-537	-487	-559	-515	-524	-604	-652	-702	-793	-764	-722	-2,689	-6,322	
Off-budget <sup>a</sup>	39	30	18	2	-16	-36	-57	-85	-117	-153	-193	-238	-87	-874	
Debt Held by the Public	11,983	12,797	13,305	13,927	14,521	15,135	15,850	16,642	17,518	18,520	19,534	20,554	n.a.	n.a.	
<b>Memorandum:</b>															
Gross Domestic Product	16,632	17,197	17,975	18,924	19,889	20,788	21,686	22,618	23,577	24,565	25,581	26,622	99,262	222,225	
<b>As a Percentage of Gross Domestic Product</b>															
<b>Revenues</b>															
Individual income taxes	7.9	8.1	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	8.7	9.0	
Payroll taxes	5.7	6.0	5.9	5.8	5.8	5.7	5.8	5.8	5.8	5.8	5.8	5.8	5.7	5.8	
Corporate income taxes	1.6	1.8	2.2	2.2	2.3	2.3	2.1	2.0	2.0	1.9	1.9	1.8	2.2	2.0	
Other	1.4	1.6	1.7	1.5	1.4	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.3	
<b>Total</b>	<b>16.7</b>	<b>17.5</b>	<b>18.3</b>	<b>18.1</b>	<b>18.1</b>	<b>18.0</b>	<b>18.0</b>	<b>18.1</b>	<b>18.1</b>	<b>18.1</b>	<b>18.2</b>	<b>18.2</b>	<b>18.1</b>	<b>18.1</b>	
On-budget	12.6	13.2	14.0	13.9	14.0	13.9	13.9	13.9	13.9	14.0	14.0	14.1	13.9	13.9	
Off-budget <sup>a</sup>	4.0	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.2	4.2	
<b>Outlays</b>															
Mandatory	12.2	12.3	12.9	13.2	13.1	12.9	13.1	13.2	13.4	13.8	13.7	13.6	13.0	13.3	
Discretionary	7.2	6.8	6.6	6.3	6.0	5.8	5.7	5.6	5.5	5.4	5.3	5.2	6.1	5.7	
Net interest	1.3	1.3	1.4	1.5	1.7	2.0	2.3	2.5	2.7	2.8	2.9	3.0	1.8	2.3	
<b>Total</b>	<b>20.8</b>	<b>20.4</b>	<b>20.9</b>	<b>21.0</b>	<b>20.8</b>	<b>20.7</b>	<b>21.1</b>	<b>21.3</b>	<b>21.5</b>	<b>21.9</b>	<b>21.9</b>	<b>21.8</b>	<b>20.9</b>	<b>21.3</b>	
On-budget	17.0	16.3	16.7	16.8	16.5	16.4	16.6	16.8	16.9	17.2	17.0	16.8	16.6	16.8	
Off-budget <sup>a</sup>	3.8	4.1	4.2	4.2	4.3	4.3	4.4	4.5	4.6	4.8	4.9	5.0	4.3	4.6	
<b>Deficit (-) or Surplus</b>	<b>-4.1</b>	<b>-2.9</b>	<b>-2.6</b>	<b>-2.9</b>	<b>-2.7</b>	<b>-2.7</b>	<b>-3.0</b>	<b>-3.3</b>	<b>-3.5</b>	<b>-3.8</b>	<b>-3.7</b>	<b>-3.6</b>	<b>-2.8</b>	<b>-3.2</b>	
On-budget	-4.3	-3.1	-2.7	-3.0	-2.6	-2.5	-2.8	-2.9	-3.0	-3.2	-3.0	-2.7	-2.7	-2.8	
Off-budget <sup>a</sup>	0.2	0.2	0.1	*	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.8	-0.9	-0.1	-0.4	
Debt Held by the Public	72.0	74.4	74.0	73.6	73.0	72.8	73.1	73.6	74.3	75.4	76.4	77.2	n.a.	n.a.	

Source: Congressional Budget Office.

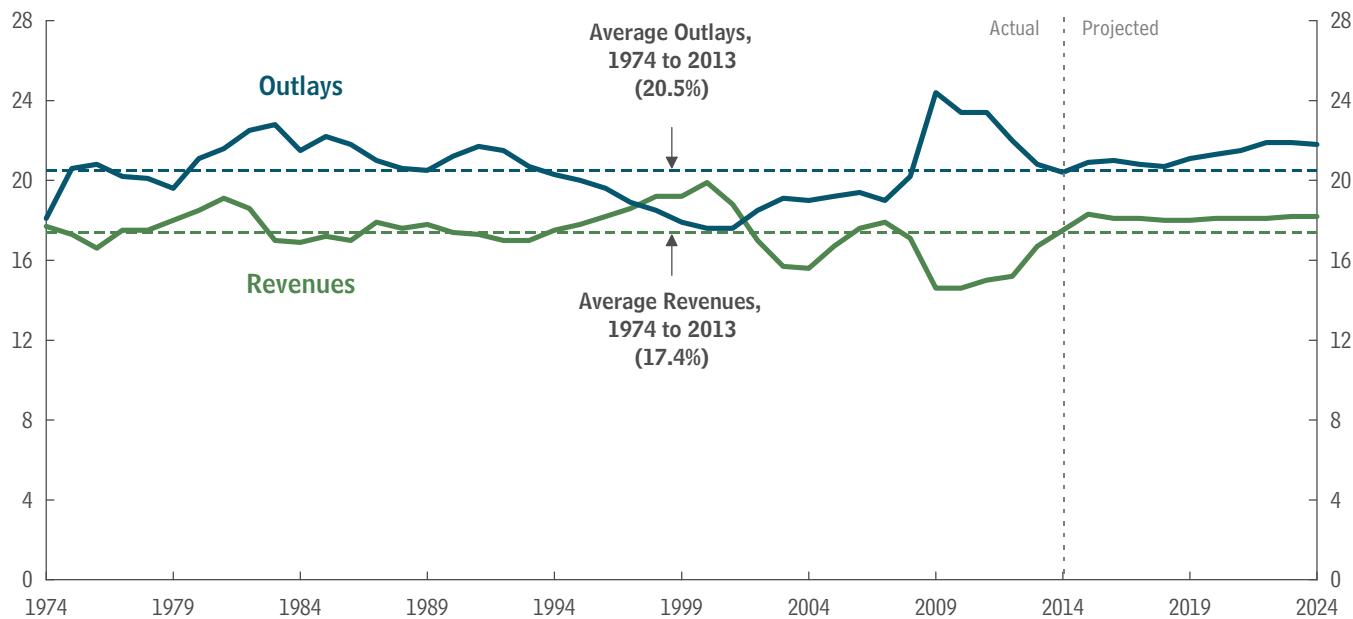
Note: n.a. = not applicable; \* = between zero and 0.05 percent.

a. The revenues and outlays of the Social Security trust funds and the net cash flow of the Postal Service are classified as off-budget.

**Figure 1-2.****Total Revenues and Outlays**

Outlays are projected to grow faster than revenues after 2018; as a result, projected deficits rise to almost 4 percent of GDP from 2022 through 2024.

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

in 2013, will be for those programs, for the government's transactions with Fannie Mae and Freddie Mac, and for higher education. (Payments from Fannie Mae and Freddie Mac to the Treasury are recorded as reductions in outlays; CBO expects that such payments will be smaller this year than they were last year, thereby boosting outlays.) Such increases in outlays will be partially offset by lower mandatory outlays for other programs, particularly unemployment compensation, the Federal Housing Administration's (FHA's) loan guarantee programs, and deposit insurance.

Federal spending for the major health care programs will jump by \$67 billion (or about 9 percent) in 2014, CBO estimates. The largest increase will be for Medicaid outlays, which are projected to grow by \$40 billion (or 15 percent) this year, in part because some states have expanded eligibility for Medicaid coverage under the provisions of the Affordable Care Act (ACA). Similarly, subsidies for health insurance purchased through exchanges established under the ACA became available in January 2014. Outlays for those subsidies, along with related spending, will total \$17 billion in 2014, CBO

estimates. Spending for those purposes totaled \$1 billion in 2013, primarily for grants to states to establish exchanges. (Subsidies for the purchase of insurance were not yet available in 2013.) Medicare outlays are continuing to grow at a modest rate in 2014; CBO expects that they will increase by \$12 billion (about 2 percent), similar to the rate of growth in 2013 (after adjusting for a shift in the timing of certain payments) and below the rate of growth in the number of Medicare beneficiaries.

Outlays for Social Security benefits are projected to climb by \$37 billion—or 4.6 percent—this year. That increase includes the effect of the 1.5 percent cost-of-living adjustment that beneficiaries received in January, as well as an estimated 2.1 percent increase in the number of beneficiaries.

CBO estimates that net outlays for Fannie Mae and Freddie Mac as well as for higher education will be negative in 2014 as they were in 2013, but by smaller amounts. (Smaller negative outlays result in a larger deficit.) Payments from Fannie Mae and Freddie Mac to the Treasury are recorded as reductions in outlays (rather

than as revenues) because they do not stem from the federal government's power to tax. Such payments totaled \$97 billion in 2013 but will fall to \$75 billion in 2014.<sup>4</sup> Mandatory outlays for higher education were negative \$26 billion in 2013 but are expected to total negative \$4 billion this year. Those outlays include subsidies for student loans issued in the current year, revisions to the subsidy costs of loans made in previous years, and mandatory spending for the Federal Pell Grant Program. In CBO's projections, outlays are negative for direct student loans because, over the life of the loan, the expected payments received by the government are greater than the expected cost of making the loans as accounted for under the Federal Credit Reform Act.

In the other direction, net spending for some programs will fall in 2014. For example, expenditures for unemployment compensation are expected to decline for a fourth consecutive year. Such spending, which totaled \$69 billion in 2013, will fall to \$43 billion in 2014, CBO estimates, primarily because the authority to pay emergency benefits expired at the end of December 2013. (The 2014 amount is roughly one-quarter of what the federal government spent for unemployment benefits in 2010, when spending for such benefits peaked at \$159 billion.)

Mandatory outlays for the loan guarantee programs of the Federal Housing Administration mostly represent the revisions made each year to the estimated costs of guaran-

4. In CBO's baseline, transactions with Fannie Mae and Freddie Mac are recorded differently for 2014 than they are for the 2015–2024 period. Because the government placed Fannie Mae and Freddie Mac into conservatorship in 2008 and now controls their operations, CBO considers the activities of those two entities to be governmental. Therefore, for the 10-year period that follows the current fiscal year, CBO projects the subsidy costs of the entities' new activities using procedures similar to those specified in the Federal Credit Reform Act of 1990 for determining the costs of federal credit programs, but with adjustments to reflect the market risk associated with those activities. The Administration, by contrast, considers Fannie Mae and Freddie Mac to be outside the federal government for budgetary purposes and records cash transactions between them and the Treasury as federal outlays or receipts. (In CBO's view, those transactions are intragovernmental.) To provide CBO's best estimate of what the Treasury will ultimately report as the federal deficit for 2014, CBO's current baseline includes an estimate of the cash receipts from the two entities to the Treasury for this year (while retaining its risk-adjusted projections of subsidy costs for later years).

tees made in previous years, as required by the Federal Credit Reform Act. (Those revisions are called credit subsidy reestimates. The budgetary effects of new guarantees each year are categorized as discretionary.) In 2013, the Administration recorded mandatory outlays of \$27.6 billion for reestimates related to FHA's loan guarantee programs; this year, it recorded a much smaller amount, \$0.7 billion—a reduction in mandatory outlays of \$27 billion. (Those outlays are reflected in the "Other" line under "Other Programs" in Table 1-2.)

In 2014, premium payments by financial institutions for deposit insurance will exceed spending by \$14 billion, CBO projects, resulting in net outlays of negative \$14 billion. In contrast, net outlays for deposit insurance totaled a positive \$4 billion last year, mostly because receipts from premiums and assessments were lower. As a result, net outlays for deposit insurance will fall by \$18 billion. In addition, spending for both the Supplemental Nutrition Assistance Program and for agriculture programs is estimated to fall by about \$6 billion, relative to the amounts recorded in 2013.

**Discretionary Spending.** CBO anticipates that outlays from annual appropriations will total \$1.17 trillion in 2014, which is \$32 billion (or 3 percent) less than they were last year (see Table 1-3 on page 14). That decline is almost entirely attributable to a drop in defense spending: Defense outlays, which amounted to \$626 billion in 2013, will fall by \$32 billion (or about 5 percent) to \$594 billion in 2014, according to CBO's calculations, marking the third consecutive year in which such spending has declined. Much of that drop is the result of lower spending on military operations in Afghanistan, which will fall by roughly \$20 billion this year, CBO estimates. All told, defense outlays this year are expected to be about 15 percent less than they were at their peak in 2011; CBO estimates that roughly half of that decline stems from lower spending for military operations in Afghanistan and Iraq.

CBO expects that nondefense discretionary outlays will total \$576 billion in 2014. That amount would be about the same as such spending last year and 12 percent less than its peak in 2010, when outlays were boosted by spending from the American Recovery and Reinvestment Act of 2009.

**Table 1-2.****Mandatory Outlays Projected in CBO's Baseline**

Billions of Dollars

	Actual, 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024												Total 2015- 2019 2015- 2024	
													2019	2024
Social Security														
Old-Age and Survivors Insurance	668	703	740	782	832	886	944	1,008	1,072	1,139	1,210	1,286	4,185	9,900
Disability Insurance	140	142	147	152	157	163	169	176	185	194	204	215	789	1,762
Subtotal	808	845	887	935	989	1,049	1,113	1,184	1,257	1,333	1,414	1,500	4,974	11,662
Major Health Care Programs														
Medicare <sup>a</sup>	585	603	620	667	683	703	774	826	883	979	1,009	1,038	3,446	8,181
Medicaid	265	305	328	366	395	416	438	461	485	511	539	570	1,943	4,509
Exchange subsidies and related spending <sup>b</sup>	1	17	50	84	103	103	109	116	123	129	134	137	450	1,088
Children's Health Insurance Program	9	10	11	10	6	6	6	6	6	6	6	6	39	67
Subtotal <sup>a</sup>	861	935	1,009	1,127	1,187	1,228	1,327	1,407	1,497	1,625	1,688	1,751	5,878	13,846
Income Security Programs														
Earned income, child, and other tax credits <sup>c</sup>	84	86	88	91	92	93	76	77	78	80	81	82	441	839
Supplemental Nutrition Assistance Program	83	77	78	78	77	75	74	74	74	73	73	74	382	749
Supplemental Security Income	53	54	55	61	58	55	62	63	65	72	69	65	291	626
Unemployment compensation	69	43	37	38	40	42	45	48	51	54	56	59	201	469
Family support and foster care <sup>d</sup>	32	31	31	32	32	32	32	32	33	33	33	34	159	323
Child nutrition	20	20	22	23	24	25	26	27	28	29	30	32	119	264
Subtotal	340	310	311	322	323	322	314	321	328	340	343	345	1,593	3,270
Federal Civilian and Military Retirement														
Civilian <sup>e</sup>	92	94	96	100	102	105	109	112	116	120	124	128	513	1,112
Military	54	55	57	63	60	57	63	64	66	73	70	67	299	639
Other	7	8	8	8	8	8	9	10	10	10	10	10	40	90
Subtotal	153	157	161	170	170	170	180	186	192	202	204	205	852	1,841
Veterans' Programs <sup>f</sup>														
Income security	66	71	74	83	79	74	83	84	85	93	87	81	392	822
Other	14	16	23	20	17	18	19	19	20	21	22	22	97	201
Subtotal	80	88	96	103	96	92	102	103	105	114	109	103	489	1,023
Other Programs														
Agriculture	24	18	12	15	14	14	14	14	14	14	14	14	69	140
MERHCF	8	9	10	10	11	11	12	13	14	14	14	15	16	54
Deposit insurance	4	-14	-10	-10	-9	-9	-15	-17	-11	-13	-14	-15	-53	-123
Higher education	-26	-4	-8	-8	-5	-3	-2	-3	-3	-4	-4	-4	-26	-43
Other	84	53	68	68	70	67	61	61	61	61	62	63	334	642
Subtotal	95	62	71	75	80	81	70	68	74	73	74	74	377	741

Continued

**Table 1-2.****Continued****Mandatory Outlays Projected in CBO's Baseline**

Billions of Dollars

	Actual, 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024												Total 2015- 2015- 2019 2024	
<b>Offsetting Receipts</b>														
Medicare <sup>g</sup>	-93	-99	-103	-109	-117	-126	-136	-144	-154	-166	-179	-191	-591	-1,426
Federal share of federal employees' retirement														
Social Security	-16	-16	-17	-18	-18	-19	-20	-20	-21	-22	-22	-23	-91	-199
Military retirement	-21	-20	-20	-20	-21	-22	-22	-23	-24	-25	-25	-26	-105	-229
Civil service retirement and other	-29	-29	-30	-30	-33	-34	-35	-36	-37	-39	-40	-41	-162	-355
Subtotal	-66	-65	-67	-68	-72	-74	-77	-79	-82	-85	-88	-91	-358	-783
Receipts related to natural resources	-15	-14	-15	-15	-14	-17	-17	-18	-18	-18	-19	-21	-79	-172
MERHCF	-9	-8	-7	-8	-8	-9	-9	-10	-10	-11	-12	-12	-41	-96
Fannie Mae and Freddie Mac <sup>h</sup>	-97	-75	0	0	0	0	0	0	0	0	0	0	0	0
Other	-25	-26	-33	-32	-34	-27	-27	-29	-30	-30	-30	-29	-152	-300
Subtotal	-305	-287	-225	-232	-245	-253	-266	-280	-294	-310	-327	-344	-1,222	-2,778
<b>Total Mandatory Outlays</b>	<b>2,032</b>	<b>2,110</b>	<b>2,312</b>	<b>2,500</b>	<b>2,601</b>	<b>2,689</b>	<b>2,840</b>	<b>2,989</b>	<b>3,159</b>	<b>3,378</b>	<b>3,504</b>	<b>3,634</b>	<b>12,941</b>	<b>29,604</b>
<b>Memorandum:</b>														
Mandatory Spending Excluding the Effects of Offsetting Receipts	2,336	2,397	2,537	2,732	2,845	2,942	3,106	3,270	3,453	3,689	3,831	3,977	14,163	32,382
Spending for Medicare Net of Offsetting Receipts	492	504	517	558	566	576	638	681	729	813	830	848	2,855	6,755
Spending for Major Health Care Programs Net of Offsetting Receipts <sup>i</sup>	768	835	906	1,018	1,070	1,101	1,191	1,263	1,343	1,459	1,508	1,560	5,286	12,420

Source: Congressional Budget Office.

Notes: Data on spending for benefit programs in this table generally exclude administrative costs, which are discretionary.

MERHCF = Department of Defense Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life).

- a. Gross spending, excluding the effects of Medicare premiums and other offsetting receipts. (Net Medicare spending is included in the memorandum section of the table.)
- b. Subsidies for health insurance purchased through exchanges established under the Affordable Care Act.
- c. Includes outlays for the American Opportunity Tax Credit and other credits.
- d. Includes the Temporary Assistance for Needy Families program, the Child Support Enforcement program, the Child Care Entitlement program, and other programs that benefit children.
- e. Includes Civil Service, Foreign Service, Coast Guard, and other, smaller retirement programs as well as annuitants' health care benefits.
- f. Income security includes veterans' compensation, pensions, and life insurance programs. Other benefits are primarily education subsidies. Most of the costs of veterans' health care are classified as discretionary spending and thus are not shown in this table.
- g. Includes premium payments, recoveries of overpayments made to providers, and amounts paid by states from savings on Medicaid's prescription drug costs.
- h. The amounts recorded for 2013 and 2014 reflect cash payments from Fannie Mae and Freddie Mac to the Treasury and are therefore recorded as offsetting receipts. In addition, CBO estimates net mandatory spending totaling \$16 billion between 2015 and 2024. Those amounts are included on the "Other" line of the category "Other Programs" and reflect CBO's estimate of the subsidy cost of new loans and guarantees made by those two entities in each year, adjusted for market risk.
- i. Consists of outlays for Medicare, Medicaid, subsidies for health insurance purchased through exchanges and related spending, and the Children's Health Insurance Program. Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.

**Table 1-3.****Discretionary Spending Projected in CBO's Baseline**

Billions of Dollars

	Actual, 2013	2014 <sup>a</sup>	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
													2015- 2019	2015- 2024
Budget Authority														
Defense	600	606	608	612	626	641	656	672	688	705	722	740	3,144	6,672
Nondefense	540	527	506	506	517	530	544	558	570	584	599	614	2,603	5,528
<b>Total</b>	<b>1,140</b>	<b>1,133</b>	<b>1,114</b>	<b>1,118</b>	<b>1,144</b>	<b>1,171</b>	<b>1,200</b>	<b>1,230</b>	<b>1,259</b>	<b>1,289</b>	<b>1,321</b>	<b>1,354</b>	<b>5,747</b>	<b>12,200</b>
Outlays														
Defense	626	594	598	610	616	623	641	656	671	693	704	716	3,088	6,528
Nondefense	576	576	589	582	578	585	595	608	620	633	648	661	2,930	6,100
<b>Total</b>	<b>1,202</b>	<b>1,170</b>	<b>1,188</b>	<b>1,192</b>	<b>1,194</b>	<b>1,208</b>	<b>1,237</b>	<b>1,264</b>	<b>1,291</b>	<b>1,326</b>	<b>1,352</b>	<b>1,377</b>	<b>6,019</b>	<b>12,628</b>
<b>Memorandum:</b>														
Caps in the Budget Control Act (as Amended), Including Automatic Reductions to the Caps														
Defense	n.a.	521	521	523	536	549	562	576	590	n.a.	n.a.	n.a.	2,691	n.a.
Nondefense	n.a.	492	492	492	504	515	529	543	555	n.a.	n.a.	n.a.	2,533	n.a.
<b>Total</b>	<b>1,043<sup>b</sup></b>	<b>1,012</b>	<b>1,014</b>	<b>1,015</b>	<b>1,040</b>	<b>1,065</b>	<b>1,092</b>	<b>1,119</b>	<b>1,145</b>	n.a.	n.a.	n.a.	<b>5,225</b>	n.a.
Adjustments to the Caps <sup>c</sup>														
Defense	n.a.	86	87	89	90	92	94	96	98	n.a.	n.a.	n.a.	453	n.a.
Nondefense	n.a.	13	13	14	14	14	14	15	15	n.a.	n.a.	n.a.	69	n.a.
<b>Total</b>	<b>153<sup>b</sup></b>	<b>99</b>	<b>100</b>	<b>102</b>	<b>104</b>	<b>107</b>	<b>109</b>	<b>111</b>	<b>113</b>	n.a.	n.a.	n.a.	<b>522</b>	n.a.

Source: Congressional Budget Office.

Notes: CBO's baseline projections incorporate the assumption that the caps on discretionary budget authority and the automatic enforcement procedures specified in the Budget Control Act of 2011 (as amended) remain in effect through 2021.

Nondefense discretionary outlays are usually higher than budget authority because of spending from the Highway Trust Fund and the Airport and Airway Trust Fund that is subject to obligation limitations set in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is not considered discretionary.

n.a. = not applicable.

- a. The amount of budget authority for 2014 in CBO's baseline does not match the sum of the spending caps plus adjustments to the caps, for two main reasons. First, \$18 billion in savings from changes to mandatory programs in the final appropriation legislation were credited against the caps; in CBO's baseline, those savings appear in their normal mandatory accounts. Second, estimates for certain offsetting collections have been reduced by about \$4 billion, boosting estimated budget authority for some accounts.
- b. The caps for 2013 applied to "security" and "nonsecurity" funding rather than to defense and nondefense funding. The security category comprised discretionary appropriations for the Departments of Defense, Homeland Security, and Veterans Affairs; the National Nuclear Security Administration; the intelligence community management account (Treasury account 95-0401-0-1-054); and discretionary accounts related to international affairs (budget function 150). The nonsecurity category comprised all other discretionary appropriations. Most discretionary budget authority for 2013 was further reduced by sequestration in that year—for defense programs, by 7.8 percent, and for nondefense programs, by 5.0 percent, though the caps themselves were not reduced.
- c. Funding for overseas contingency operations, emergencies, disaster relief, and certain program integrity initiatives (which identify and reduce overpayments in some benefit programs) is generally not constrained by the statutory caps established by the Budget Control Act. In CBO's baseline, funding for those purposes is extrapolated from the amount provided in 2014 with adjustments for inflation. If future funding equaled the amounts projected in CBO's baseline, the caps would be revised upward by equivalent amounts.

**Net Interest.** Outlays for the budget category “net interest” consist of the government’s interest payments on debt held by the public minus interest income the government receives. Such outlays will rise by nearly 5 percent, to \$231 billion this year from \$221 billion last year, CBO estimates. Because interest rates remain very low by historical standards, those amounts are similar to the net interest outlays 15 to 20 years ago, when the government’s debt was much smaller. Much of the growth in 2014 results from continued accumulation of debt as well as higher inflation this year, which has boosted the cost of inflation-protected securities issued by the Treasury.

## Revenues in 2014

On the basis of tax collections through July 2014, CBO expects federal revenues to total \$3.0 trillion this fiscal year, \$231 billion (or about 8 percent) more than in 2013. Individual income and payroll (social insurance) taxes, the two largest sources of revenues, are expected to record the largest gains in nominal dollars. Receipts from both corporate income taxes and remittances by the Federal Reserve, two smaller sources of revenues, are expected to increase by smaller dollar amounts (though by larger percentages). CBO expects total revenues relative to the size of the economy to rise from 16.7 percent in 2013 to 17.5 percent in 2014, close to the average of the past 40 years (17.4 percent).

**Individual Income Taxes.** CBO anticipates that collections of individual income taxes will increase by \$73 billion (or about 6 percent) in 2014. Withheld income taxes, which are generally about triple the size of nonwithheld income tax receipts, account for most of the increase in revenues, primarily because of increases in wages and salaries. Receipts from nonwithheld income taxes are also expected to increase, largely because of the effects of higher nonwage income in 2013 and 2014 on quarterly estimated payments.

**Payroll Taxes.** CBO expects that receipts from payroll taxes—which primarily fund Social Security and Medicare’s Hospital Insurance program—will increase by \$76 billion (or about 8 percent).<sup>5</sup> The increase in payroll tax receipts largely reflects increases in wages and salaries and a change in tax law. Specifically, the 2 percentage-point payroll tax cut that was in effect in calendar years 2011 and 2012 expired in January 2013, so the tax rates

5. In the federal budget, payroll tax receipts are referred to as “social insurance and retirement receipts.”

in effect from October 2012 through December 2012 (the first quarter of fiscal year 2013) were lower than those in place during the rest of fiscal year 2013 and all of fiscal year 2014.

**Corporate Income Taxes.** Income tax payments by corporations, net of refunds, are expected to increase by \$41 billion (or about 15 percent) this year. Most of that increase, CBO estimates, results from the expiration of various tax provisions at the end of calendar year 2013. In particular, taxable profits have increased in calendar year 2014 as a result of the expiration at the end of calendar year 2013 of rules that allowed firms with large amounts of investment to expense—that is, immediately deduct—50 percent of their investments in equipment.<sup>6</sup> However, regulations governing estimated tax payments allow firms to delay some of the resulting increase in tax payments until fiscal year 2015.

**Remittances From the Federal Reserve.** Much of the remaining increase in revenues results from remittances from the Federal Reserve, which are expected to increase in fiscal year 2014 by \$25 billion (or about 33 percent). That increase is attributable primarily to the larger size of the central bank’s portfolio of securities and to a higher yield on that portfolio.

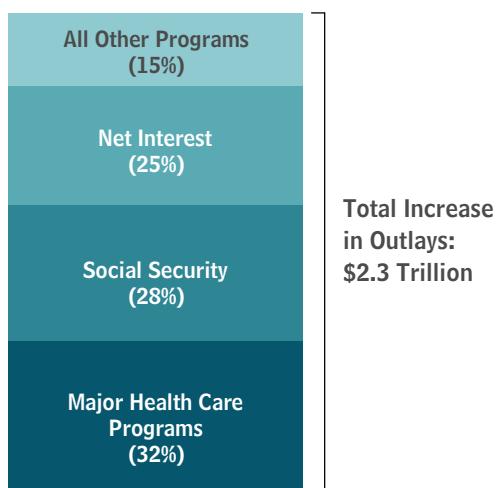
## Comparison With OMB’s Recent Estimates

The Office of Management and Budget (OMB) recently updated its budget projections.<sup>7</sup> For 2014, OMB anticipates a deficit of \$561 billion—\$55 billion more than CBO’s estimate—if there is no further legislation affecting revenues or spending. Differing estimates of discretionary outlays account for about two-thirds of that gap: Based on past experience and on data for the fiscal year to date, CBO expects that many programs will spend their appropriations more slowly than OMB anticipates. Mandatory spending in CBO’s baseline is also below OMB’s estimate—by \$14 billion—primarily because

6. By contrast, businesses with relatively small amounts of investment in new equipment have been permanently allowed since 1982 to fully deduct those costs in the year in which the equipment was placed in service, although the maximum amount of such investments allowed to be deducted has changed over time.
7. OMB’s most recent update was published in Office of Management and Budget, *Fiscal Year 2015 Mid-Session Review: Budget of the U.S. Government* (July 11, 2014), [www.whitehouse.gov/omb/budget/MSR](http://www.whitehouse.gov/omb/budget/MSR).

**Figure 1-3.****Components of the Total Increase in Outlays in CBO's Baseline Between 2014 and 2024**

Three components of the budget account for 85 percent of the total increase in outlays over the coming decade.



Source: Congressional Budget Office.

**Notes:** The category "Major Health Care Programs" consists of Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. (Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.)

The category "All Other Programs" consists of all mandatory programs other than Social Security, the major health care programs, and net interest, as well as defense and nondefense discretionary programs.

CBO anticipates that net outlays for deposit insurance will be \$5 billion below OMB's estimate and that outlays for Medicare and Medicaid will each be \$4 billion lower. CBO's estimates of both revenues and net interest spending in 2014 are higher than what OMB anticipates, by \$13 billion and \$7 billion, respectively.

**CBO's Baseline Budget Projections for 2015 to 2024**

Under the assumption that fiscal policy unfolds as specified by current law, CBO projects that the budget deficit will shrink again in 2015, to \$469 billion, or 2.6 percent of GDP. Between 2016 and 2024, deficits would follow an upward trend, reaching \$960 billion, or almost 4 percent of GDP, by the end of the period.<sup>8</sup>

CBO's baseline projections are not a forecast of future outcomes. They are constructed in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. As those laws specify, CBO constructs its baseline projections under the assumption that current laws will generally remain unchanged; the projections can therefore serve as a benchmark against which potential changes in law can be measured.

However, even if federal laws remained unchanged for the next decade, actual budgetary outcomes would almost certainly differ from CBO's baseline projections, perhaps significantly, because of unanticipated changes in economic conditions and other factors that affect federal spending and revenues. CBO's projections of outlays and revenues depend on the agency's economic projections for the coming decade—including forecasts for such variables as interest rates, inflation, and GDP—as well as myriad technical factors. Discrepancies between those projections and actual outcomes can result in significant differences between baseline budget projections and actual outcomes. For example, in February, CBO estimated that if the rate of inflation was higher (or lower) than CBO projects by 1 percentage point each year, baseline deficits over the 10-year period would be about \$0.8 trillion larger (or smaller).<sup>9</sup>

**Outlays From 2015 Through 2024**

Under current law, total outlays are projected to hover around 21 percent of GDP—their average for the past 40 years—through 2020 and then to rise, totaling close to 22 percent of GDP from 2021 through 2024. In nominal terms, outlays would grow, on net, by \$2.3 trillion between 2014 and 2024, CBO estimates, an average annual increase of 5.2 percent.

The three fastest-growing components of the budget—Social Security, the major health care programs, and net interest—account for 85 percent of the total increase in outlays over the coming decade (see Figure 1-3). Through 2024, spending for Social Security is projected

8. CBO's updated baseline projections incorporate the effects of legislation enacted through August 7, 2014.
9. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024* (February 2014), Appendix D, [www.cbo.gov/publication/45010](http://www.cbo.gov/publication/45010).

to grow by about \$650 billion, an increase of almost 80 percent, and outlays for the major health care programs (net of offsetting receipts) are projected to rise by more than \$720 billion, an increase of more than 85 percent. Net interest outlays in 2024 are projected to be more than triple interest outlays in 2014, increasing by almost \$570 billion during that period—the result of both projected growth in federal debt and a rise in interest rates.

During the same period, mandatory spending apart from that for Social Security and the major health care programs is projected to rise by about \$150 billion, an increase of about one-third, and discretionary spending is projected to rise by about \$210 billion, an increase of less than one-fifth.

**Mandatory Spending.** For most mandatory spending programs, CBO's projections incorporate the assumption that current laws continue unchanged and reflect anticipated developments in the economy, demographics, and other factors. They also incorporate the effects of sequestration—across-the-board reductions in funding imposed by the Budget Control Act of 2011 (as amended)—on the programs subject to it through 2024.

CBO projects that under current law, mandatory spending (net of offsetting receipts, which are recorded as reductions in outlays) would increase from \$2.1 trillion in 2014 to \$3.6 trillion in 2024, an average yearly increase of roughly 5½ percent. As a percentage of GDP, mandatory spending is projected to be about 13 percent between 2015 and 2020 and then to rise, reaching nearly 14 percent of GDP from 2022 through 2024.<sup>10</sup> During the past 40 years, mandatory spending has averaged 10.0 percent of GDP (though it has exceeded that average in every year since 2002—reflecting the significant

10. In CBO's baseline, mandatory outlays dip from 13.8 percent of GDP in 2022 to 13.7 percent in 2023 and to 13.6 percent in 2024. That pattern results largely from shifts in the timing of certain payments. Because October 1, 2022, and October 1, 2023, will fall on weekends, certain federal payments that are due on each of those days will instead be made at the end of the preceding September and thus be shifted into the previous fiscal year. Without those timing shifts, mandatory outlays in CBO's baseline would increase from 13.5 percent of GDP in 2022 to 13.9 percent in 2024.

growth in spending for Social Security and the major health care programs in the past decade).

Under current law, outlays for Social Security and the major health care programs would grow from 10.0 percent of GDP in 2015 to 11.5 percent in 2024, CBO projects; spending for Social Security is currently greater than spending for those health care programs, but under current law, that ranking would be reversed in 2015 and later years (see Figure 1-4).

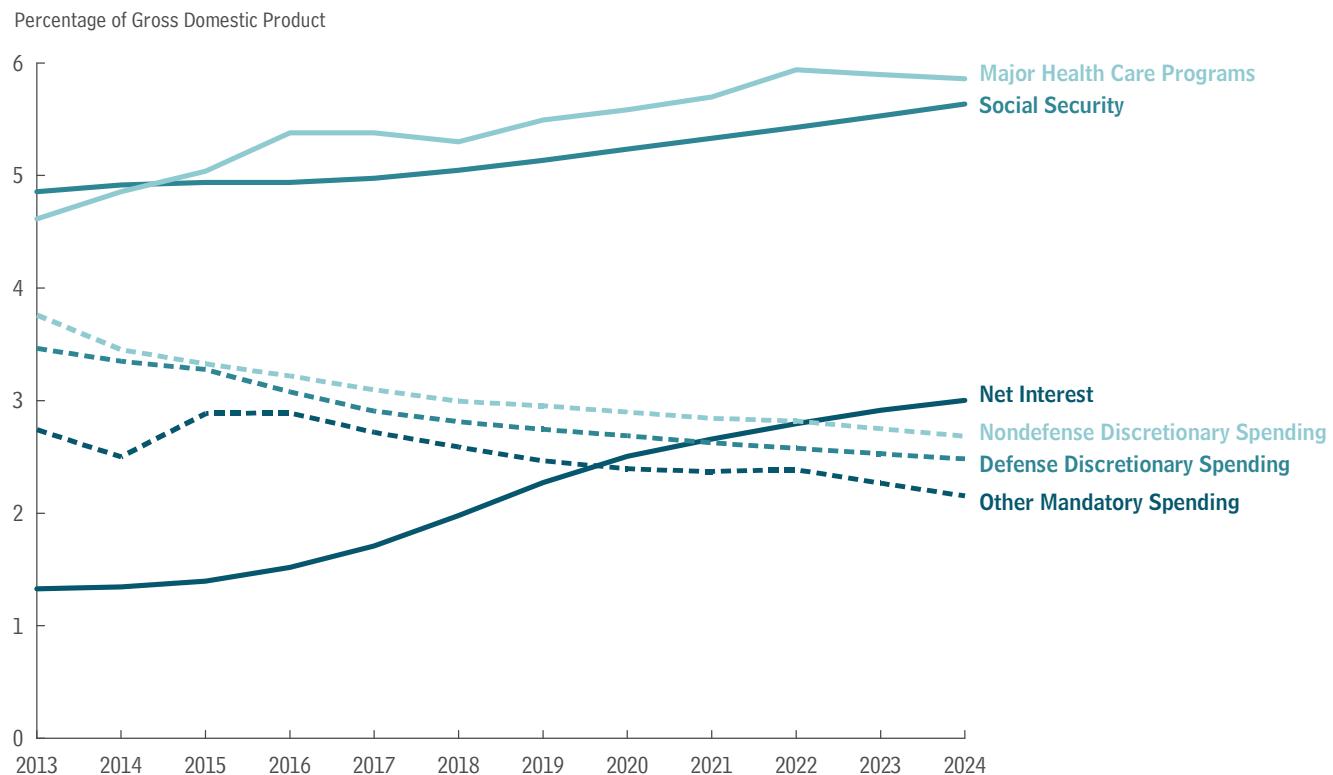
In CBO's baseline projections:

- Spending for both Social Security and Medicare remains fairly stable as a percentage of GDP for the first half of the projection period. However, spending for those programs rises relative to GDP in the second half of the period, mostly because of the aging of the population. By 2024, Social Security and net Medicare outlays reach 5.6 percent and 3.2 percent of GDP, respectively, compared with 4.9 percent and 2.9 percent in 2014 (see Figure 1-5).
- Federal outlays for Medicaid rise as a share of GDP over the next 10 years, from 1.8 percent in 2014 to 2.1 percent in 2024. There are three main reasons for that growth: More states are expected to expand Medicaid coverage under the provisions of the ACA; more people in states that have already expanded such coverage are expected to enroll in Medicaid; and federal spending for Medicaid benefits per person is expected to increase over time.
- Spending on subsidies for health insurance purchased through exchanges, along with related spending, increases from 0.1 percent of GDP in 2014 to 0.5 percent in 2024.<sup>11</sup> Such subsidies became available in 2014 for people who met income and other eligibility criteria.
- All told, spending on the government's major health care programs, net of offsetting receipts, increases from 4.9 percent of GDP in 2014 to 5.9 percent of GDP in 2024.

11. That calculation includes the outlays for risk adjustment, reinsurance, and risk corridor payments, which reallocate cash flows among insurers and are offset over time on the revenue side of the budget.

**Figure 1-4.****Projected Outlays for Major Budget Categories**

Spending for Social Security and the federal government's major health care programs is projected to rise from 9.5 percent of GDP in 2013 to 11.5 percent in 2024.



Source: Congressional Budget Office.

Notes: The category "Major Health Care Programs" consists of Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. (Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.)

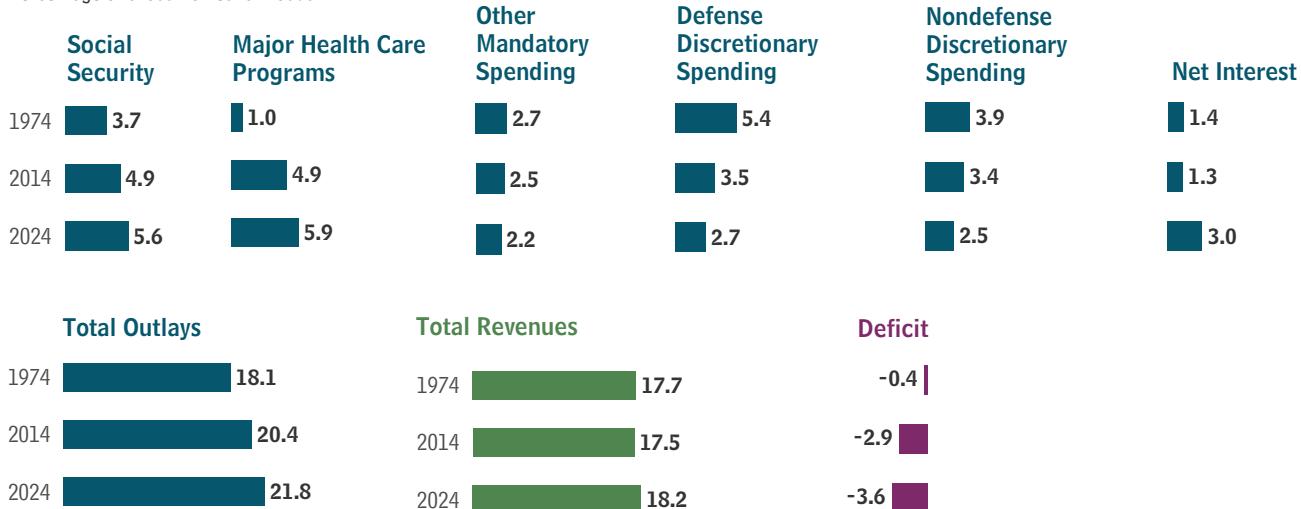
"Other Mandatory Spending" is all mandatory spending other than that for major health care programs, Social Security, and net interest.

- All other mandatory spending, net of offsetting receipts, declines as a share of GDP, from 2.5 percent in 2014 to 2.2 percent in 2024. Included in that category, for example, are programs that provide income support (such as unemployment compensation and the Supplemental Nutrition Assistance Program), military and civilian retirement, veterans' benefits, and agriculture spending. That decline is projected to occur because spending for many of the programs included in that category rises roughly with inflation, and the rate of inflation is projected to be well below the rate of growth in nominal GDP.

**Discretionary Spending.** Discretionary spending encompasses a wide array of federal activities funded or controlled through annual appropriations—including, for example, most defense spending and outlays for highway programs, elementary and secondary education, housing assistance, international affairs, and administration of justice. Measured as a share of GDP, discretionary outlays are projected to drop from 6.8 percent in 2014 to 5.2 percent in 2024; over the past 40 years, they have averaged 8.3 percent.

**Figure 1-5.****Spending and Revenues Projected in CBO's Baseline, Compared With Levels in 1974**

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Notes: The category "Major Health Care Programs" consists of Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. (Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.)

"Other Mandatory Spending" is all mandatory spending other than that for major health care programs, Social Security, and net interest.

For discretionary spending, CBO's baseline incorporates the caps on budget authority put in place by the Budget Control Act, including the reductions in those caps that are scheduled to occur in fiscal years 2016 through 2021 under the law's automatic enforcement procedures.<sup>12</sup>

However, appropriations for programs not constrained by the caps—for overseas contingency operations (military operations and related activities in Afghanistan and other countries), activities designated as emergency requirements, disaster relief (up to certain limits), and certain efforts to reduce overpayments in benefit programs—are assumed to grow with inflation from the amounts provided in 2014.<sup>13</sup>

For 2015, the caps on discretionary budget authority for defense and nondefense programs are each less than

\$1 billion above those for 2014. However, the year-to-year changes in the budget authority projected in the baseline are different:

- Discretionary budget authority for nondefense programs in CBO's baseline declines by \$21 billion in 2015 primarily because, in 2014, some reductions in mandatory budget authority were included in appropriation legislation to help keep funding within the caps. CBO's baseline for discretionary programs for 2015 does not include such changes to mandatory programs (since no further changes of that sort have been enacted yet), so satisfying the caps would require providing less discretionary budget authority in that year (unless similar changes to mandatory programs are legislated again in the appropriation process).<sup>14</sup>

12. Budget authority refers to the authority provided by law to incur financial obligations that will result in immediate or future outlays of federal government funds.

13. Spending for certain transportation programs is controlled by obligation limitations, which are also not constrained by the caps on discretionary spending.

14. CBO has also updated its estimates of offsetting collections—some fees and other charges that are triggered by appropriation action and credited against discretionary spending for the particular accounts affected. In total, those estimates have been reduced, boosting estimated budget authority by about \$4 billion relative to what CBO had previously estimated.

- For defense programs, budget authority in CBO’s baseline is \$2 billion higher in 2015 than in 2014 as a result of the slightly higher cap and the assumption that funding for overseas contingency operations next year will grow from this year’s level at the rate of inflation.

After 2015, CBO projects, discretionary budget authority would rise by about 2 percent a year, on average, reflecting the rate of increase in the caps called for under the Budget Control Act.

In the baseline, total discretionary outlays grow very slowly over the next few years—at an annual average rate of less than 1 percent between 2015 and 2018—and then keep pace with the projected 2 percent annual increase in budget authority, reaching \$1.4 trillion by the end of the projection period.

**Net Interest.** CBO expects two factors to sharply boost the government’s interest payments on debt held by the public during the coming decade—rising interest rates and growing debt. Between calendar years 2014 and 2019, CBO expects, the interest rate on 3-month Treasury bills will rise from 0.1 percent to 3.5 percent and the rate on 10-year Treasury notes will rise from 2.8 percent to 4.7 percent; both will remain at those levels through 2024.

At the same time, debt held by the public is projected to increase significantly under current law. That debt consists mostly of securities that the Treasury issues to raise cash to fund the federal government’s activities and to pay off its maturing liabilities. The net amount that the Treasury borrows by selling those securities (the amounts that are sold minus the amounts that have matured) is influenced primarily by the annual budget deficit. In addition, the Treasury borrows to provide financing for student loans and other credit programs; CBO projects that such additional borrowing, often called other means of financing, will average roughly \$55 billion per year during the 2015–2024 period.

After accounting for all of the government’s borrowing needs, CBO projects that under current law, debt held by the public would rise from \$12.8 trillion at the end of 2014 to \$20.6 trillion at the end of 2024 (see Table 1-4).

Relative to the size of the economy, it would stay between 72 percent and 74 percent of GDP through 2020 but then grow steadily, reaching 77 percent of GDP at the end of 2024.

Although CBO has reduced its projection of interest outlays over the 10-year projection period relative to its previous baseline (see Appendix A), rising interest rates and growing federal debt are still projected to raise net interest payments significantly. According to CBO’s estimates, such payments would increase from \$231 billion in 2014, or 1.3 percent of GDP, to \$799 billion in 2024, or 3.0 percent of GDP—the highest ratio since 1996.

### Revenues From 2015 Through 2024

Total revenues are projected to rise from 17.5 percent of GDP this year to 18.3 percent of GDP in 2015, largely as a result of changes in provisions of law that have already been implemented and, to a lesser extent, the ongoing economic expansion and new fees and fines scheduled to take effect under the ACA. During the rest of the decade beginning in 2015, total revenues are projected to remain relatively stable as a share of GDP, fluctuating between 18.0 percent and 18.3 percent—compared with their 40-year average of 17.4 percent of GDP. That stability in total revenues as a percentage of GDP after 2015 reflects roughly offsetting movements in three revenue sources:

- Individual income tax receipts are projected to continue to increase relative to GDP, as a result of real bracket creep, increases in withdrawals from tax-deferred retirement accounts as more baby boomers retire, changes in tax provisions, and other factors.
- Corporate income tax receipts are projected to decline relative to the size of the economy after 2017 largely because of an expected drop in domestic economic profits relative to GDP as a result of growing labor costs, rising interest payments on businesses’ debt, and increasing depreciation deductions from a changing composition of business capital.
- Remittances to the Treasury from the Federal Reserve—which have been very large since 2010 because of changes in the size and composition of the central bank’s portfolio—are projected to decline to more typical levels.

**Table 1-4.****Federal Debt Projected in CBO's Baseline**

Billions of Dollars

	Actual, 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024											
Debt Held by the Public at the Beginning of the Year	11,281 11,983 12,797 13,305 13,927 14,521 15,135 15,850 16,642 17,518 18,520 19,534											
Changes in Debt Held by the Public												
Deficit	680	506	469	556	530	560	661	737	820	946	957	960
Other means of financing	22	309	39	65	64	53	54	55	56	57	56	61
Total	701	815	508	622	595	613	715	792	876	1,002	1,013	1,021
Debt Held by the Public at the End of the Year	11,983	12,797	13,305	13,927	14,521	15,135	15,850	16,642	17,518	18,520	19,534	20,554
<b>Memorandum:</b>												
Debt Held by the Public at the End of the Year (As a percentage of GDP)	72.0	74.4	74.0	73.6	73.0	72.8	73.1	73.6	74.3	75.4	76.4	77.2
Debt Held by the Public Minus Financial Assets <sup>a</sup>												
In billions of dollars	11,067	11,589	12,017	12,532	13,022	13,541	14,163	14,863	15,649	16,561	17,488	18,417
As a percentage of GDP	66.5	67.4	66.9	66.2	65.5	65.1	65.3	65.7	66.4	67.4	68.4	69.2
Gross Federal Debt <sup>b</sup>	16,719	17,804	18,426	19,165	19,905	20,668	21,514	22,420	23,379	24,421	25,457	26,515
Debt Subject to Limit <sup>c</sup>	16,699	17,783	18,405	19,144	19,883	20,646	21,492	22,398	23,357	24,399	25,436	26,494
Average Interest Rate on Debt Held by the Public (Percent) <sup>d</sup>	1.8	1.8	1.9	2.1	2.3	2.7	3.1	3.4	3.6	3.7	3.8	3.9

Source: Congressional Budget Office.

Note: GDP = gross domestic product.

- a. Debt held by the public minus the value of outstanding student loans and other credit transactions, financial assets (such as preferred stock) purchased from institutions participating in the Troubled Asset Relief Program, cash balances, and other financial instruments.
- b. Federal debt held by the public plus Treasury securities held by federal trust funds and other government accounts.
- c. The amount of federal debt that is subject to the overall limit set in law. Debt subject to limit differs from gross federal debt mainly because most debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit. That limit was most recently set at \$17.2 trillion but has been suspended through March 15, 2015. On March 16, the debt limit will be raised to its previous level plus the amount of federal borrowing that occurred while the limit was suspended.
- d. The average interest rate is calculated as net interest divided by debt held by the public.

All told, CBO estimates that, under current law, revenues would grow at an average annual rate of 4.9 percent from 2014 to 2024, slightly slower than the rate of increase in spending.

**Individual Income Taxes.** If current laws do not change, receipts from individual income taxes are expected to rise markedly relative to GDP over the next 10 years—from 8.1 percent in 2014, just above the average of 7.9 percent over the past 40 years, to 9.4 percent by 2024, higher

than in all but two of the past 40 years. That increase would result from the following:

*Real Bracket Creep.* In CBO's projections, the largest factor pushing up average individual income tax rates—that is, income taxes as a percentage of total income—is real bracket creep. That phenomenon occurs because the income tax brackets and exemptions under both the regular income tax and the alternative minimum tax are indexed only to inflation and not for growth in real, or

inflation-adjusted, income.<sup>15</sup> When real economic growth occurs, total income grows faster than the inflation-indexed tax brackets do, pushing more income into higher tax brackets. That factor causes projected revenues relative to GDP to rise by 0.5 percentage points from 2014 to 2024.

***Increases in Distributions From Tax-Deferred Retirement Accounts.*** CBO expects that in coming years, as more members of the baby-boom generation retire, taxable distributions from tax-deferred retirement accounts will grow more rapidly than GDP. Those distributions are also expected to increase relative to GDP over the next few years because balances in those accounts have been boosted of late by substantial increases in equity prices. By CBO's estimate, the increase in distributions from such accounts will cause revenues relative to GDP to rise by 0.2 percentage points between now and 2024.

***Changes in Tax Provisions.*** Certain tax provisions that reduced revenues expired at the end of calendar year 2013, including rules allowing corporate and non-corporate businesses to accelerate depreciation deductions more than was allowed for most years before 2008 and more than is allowed currently. (Income of noncorporate business owners is subject to the individual income tax.) The effect of those expiring provisions and other changes in tax rules causes individual income tax revenues in CBO's baseline to rise by 0.2 percentage points between 2014 and 2015, and that increase largely persists thereafter through 2024.

***Other Factors.*** Other factors are projected to raise individual income tax receipts as a share of GDP by 0.4 percentage points between now and 2024. Among those factors is an expectation that earnings will grow faster for higher-income people than for others during the next decade—as they have over the past several decades—causing a larger share of income to be taxed at higher rates.<sup>16</sup> In addition, total earnings are projected to rise slightly relative to GDP from 2016 to 2024, reflecting a gradual recovery in the labor share of national income (see Chapter 2 for a more detailed discussion).

15. The alternative minimum tax is a parallel income tax system with fewer exemptions, deductions, and rates than the regular income tax. Households must calculate the amount that they owe under both the alternative minimum tax and the regular income tax, and then pay the larger of the two amounts.

**Payroll Taxes.** Receipts from payroll taxes are projected to decline slightly relative to the size of the economy in the next two years, from 6.0 percent of GDP this year to 5.8 percent in 2016, and to decline further to 5.7 percent in 2024. Much of the decline through 2016 reflects a reduction in receipts from states' deposits to unemployment trust funds.<sup>17</sup> Those receipts grew rapidly following the recession, as states increased their deposits to replenish trust funds that had been depleted because of high unemployment and the resulting large payments of unemployment insurance benefits. But as trust fund balances grew in 2013 and 2014, those state deposits began to decline; CBO expects them to continue to fall to more typical levels over the next few years.

Payroll tax receipts as a percentage of GDP continue to decline very gradually in CBO's baseline through 2024 because, as earnings grow faster for higher-income people than for others over the next decade, a greater share of earnings would be above the taxable maximum amount for Social Security. That effect is only partially offset by the projected rise in wages and salaries as a share of GDP over the period.

**Corporate Income Taxes.** Under current law, CBO projects that corporate income tax receipts would rise from 1.8 percent of GDP in 2014 to 2.3 percent of GDP by 2017. That jump reflects a continuing increase in the average corporate tax rate on domestic economic profits (that is, corporate tax receipts as a percentage of domestic economic profits).

The projected increase in the average corporate tax rate stems largely from a waning of various factors that have held the rate down since the recession. The rate fell sharply from 2007 to 2010, in part because of a significant drop in corporations' realizations of capital gains and in part because of a sharp increase in deductions of bad

16. That increase in individual income tax receipts is partially offset in CBO's baseline by a decrease in payroll tax receipts. Faster growth in earnings for higher-income people would lower the average payroll tax rate because a greater share of earnings would be above the taxable maximum amount for Social Security (\$117,000 in 2014, indexed to growth in average earnings for all workers).

17. Deposits by states to their unemployment trust funds are considered federal revenues. Those deposits typically stem from taxes that states levy on employers' wage payments but can also include lump-sum amounts from other sources, such as from the proceeds of issuing bonds.

debts from corporate income. Since then, the rate has risen somewhat, but it has not returned to its 2007 level and remains low by historical standards. Although the reasons for the low rate in the past two years will not become clear until detailed information from corporate tax returns becomes available in the future, CBO expects that whatever factors have been at work will dissipate as the economy continues to recover. The resulting increase in the average corporate tax rate is projected to boost corporate receipts relative to GDP by 0.4 percentage points between 2014 and 2017.

Expiring tax provisions also contribute significantly to the increase in projected corporate receipts from 2014 to 2015, but that effect is temporary and is mostly gone by 2017. In particular, the expiration of the provisions that allowed firms to expense 50 percent of their investments in equipment is expected to boost receipts substantially in 2015, but the effects wane in nominal dollars after 2015 because the provisions affected the timing of deductions rather than their overall amount.

After the next few years, corporate income tax receipts are projected to decline again relative to the size of the economy—from 2.3 percent of GDP in 2017 to 1.8 percent in 2024. That decrease is attributable mainly to a projected drop in corporations' domestic economic profits as a share of GDP, which is expected to result primarily from growing labor costs, rising interest payments on businesses' debt, and increasing depreciation deductions on the stock of business capital as it shifts toward faster-depreciating property.

**Receipts From Other Sources.** The federal government also collects revenues from excise taxes, estate and gift taxes, customs duties, remittances from the Federal Reserve, and miscellaneous fees and fines. CBO projects that, all together, revenues from those sources will decline from 1.6 percent of GDP this year to 1.3 percent of GDP in 2024.

Remittances of the Federal Reserve are expected to fall from 0.6 percent of GDP this year—their highest level in history—to below 0.2 percent of GDP by 2024. In recent years, the central bank has significantly expanded the size of its asset holdings and changed the composition of those holdings, boosting its earnings and subsequent remittances to the Treasury far above typical levels. CBO anticipates that the size and composition of the Federal Reserve's portfolio, along with its remittances to the

Treasury, will gradually return to amounts roughly in line with historical experience.

Under current law, those declining receipts from the Federal Reserve would be partially offset, CBO estimates, by rising receipts from other sources. The largest such change is in miscellaneous fees and fines, which are projected to increase from 0.2 percent of GDP in 2014 to 0.3 percent of GDP in each year between 2015 and 2024 as new fees and fines under the ACA take effect.

## Alternative Assumptions About Fiscal Policy

To illustrate how different decisions by policymakers about federal spending programs and the federal tax system would affect future deficits, CBO estimated the budgetary effects of several alternative policies (see Table 1-5). The discussion here focuses on the policies' direct effects on revenues and outlays, but the changes also would affect the costs of paying interest on federal debt (shown separately in the table).

### Military and Diplomatic Operations in Afghanistan and Other War-Related Activities

The first alternative path addresses spending for overseas contingency operations. The outlays projected in the baseline come from budget authority provided for those purposes in 2013 and prior years, the \$92 billion in budget authority provided for 2014, and the roughly \$1.0 trillion that is projected to be appropriated over the 2015–2024 period (under the assumption that annual funding is set at \$92 billion, with adjustments for anticipated inflation, in accordance with the rules governing baseline projections).<sup>18</sup>

In coming years, the funding required for overseas contingency operations might be smaller than the amounts projected in the baseline if the number of deployed troops and the pace of operations diminished over time. For that reason, CBO has formulated a budget scenario that reflects a reduction in the number of U.S. troops deployed abroad for military actions, and a concomitant reduction in related diplomatic operations and foreign aid. Many other scenarios—some costing more and some less—are also possible.

18. Funding for overseas contingency operations in 2014 includes \$85 billion for military operations and indigenous security forces and \$7 billion for diplomatic operations and foreign aid.

**Table 1-5.****Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline**

Billions of Dollars

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total 2015-2015-
	Policy Alternatives That Affect Discretionary Outlays											
Reduce the Number of Troops Deployed for Overseas Contingency Operations to 30,000 by 2017 <sup>a</sup>												
Effect on the deficit <sup>b</sup>	0	19	38	51	61	68	72	74	76	77	78	238
Debt service	0	*	1	2	4	8	11	15	18	22	26	15
Increase Discretionary Appropriations at the Rate of Inflation After 2014 <sup>c</sup>												
Effect on the deficit <sup>b</sup>	0	-24	-49	-61	-68	-74	-79	-85	-89	-93	-96	-276
Debt service	0	*	-1	-3	-5	-9	-13	-17	-21	-26	-31	-18
Freeze Most Discretionary Appropriations at the 2014 Amount <sup>d</sup>												
Effect on the deficit <sup>b</sup>	0	-11	-15	0	21	45	70	96	124	154	184	40
Debt service	0	*	*	-1	*	1	3	7	12	18	26	*
Maintain Medicare's Payment Rates for Physicians at the Current Rate <sup>e</sup>												
Effect on the deficit <sup>b</sup>	0	-7	-10	-12	-11	-11	-13	-14	-16	-18	-18	-52
Debt service	0	*	*	-1	-1	-2	-2	-3	-4	-5	-6	-4
Policy Alternative That Affects Mandatory Outlays												
Remove the Effect of the Automatic Enforcement Procedures Specified in the Budget Control Act <sup>f</sup>												
Effect on the deficit <sup>b</sup>	n.a.	-6	-63	-87	-95	-98	-101	-100	-102	-109	-113	-350
Debt service	n.a.	*	-1	-3	-7	-12	-16	-21	-26	-32	-38	-22

**Continued**

In 2013, the number of active-duty, reserve, and National Guard personnel deployed for war-related activities averaged about 125,000, and that total has declined to about 100,000 in 2014, CBO estimates. In this alternative scenario, the average number of military personnel deployed for war-related purposes would decline further over three years: to 70,000 in 2015, 50,000 in 2016, and 30,000 in 2017 and thereafter. (Those levels could represent various allocations of forces around the world.) Under that scenario, and assuming that the war-related funding for diplomatic operations and foreign aid declines at a similar rate, total discretionary outlays over the 2015–2024 period would be \$615 billion less than the amount in the baseline.<sup>19</sup>

**Other Discretionary Spending**

Policymakers could vary discretionary funding in many ways from the amounts projected in the baseline. For

example, if lawmakers eliminated or modified the caps on discretionary funding and set appropriations to grow each year through 2024 at the same rate as inflation after

19. Legislation that placed limits on appropriations for overseas contingency operations that were below the amounts in CBO's baseline would result in estimated reductions in spending relative to the outlays in CBO's baseline, which are based on the projection of \$1.0 trillion in budget authority over 10 years, extrapolated from 2014 funding. That sum, however, is just a baseline projection; such funding has not yet been provided, and there are no funds in the Treasury set aside for that purpose. As a result, reductions relative to the baseline might simply reflect policy decisions that have already been made and that would be realized even without such funding constraints. Moreover, if future policymakers believed that national security required appropriations above the capped amounts, they would almost certainly provide emergency appropriations that would not, under current law, be counted against the caps.

**Table 1-5.****Continued****Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline**

Billions of Dollars

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	<b>Total</b>	
												2015-	2015-
<b>Policy Alternative That Affects the Tax Code</b>													
Extend Expiring Tax Provisions <sup>g</sup>													
Effect on the deficit <sup>b</sup>	0	-139	-79	-73	-70	-88	-85	-86	-89	-93	-96	-448	-897
Debt service	0	-1	-3	-6	-10	-15	-19	-24	-29	-34	-39	-34	-179
<b>Memorandum:</b>													
Outlays for Overseas Contingency Operations in CBO's Baseline	102	97	97	96	97	98	100	102	104	106	108	486	1,005
Deficit in CBO's Baseline	-506	-469	-556	-530	-560	-661	-737	-820	-946	-957	-960	-2,777	-7,196

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

Notes: Negative numbers indicate an increase in the deficit; positive numbers indicate a decrease in the deficit.

\* = between -\$500 million and \$500 million; n.a. = not applicable.

- a. For this alternative, CBO does not extrapolate the \$92 billion in budget authority for military operations, diplomatic activities, and foreign aid in Afghanistan and other countries provided for 2014. Rather, the alternative incorporates the assumption that the number of troops falls to about 30,000 by 2017, and that funding for overseas contingency operations declines as well, to \$58 billion in 2015, \$44 billion in 2016, and then to about \$30 billion per year from 2017 on—for a total of \$340 billion over the 2015–2024 period.
- b. Excludes debt service.
- c. These estimates reflect the assumption that appropriations will not be constrained by caps set by the Budget Control Act of 2011 and will instead grow at the rate of inflation from their 2014 level. Discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries; other discretionary funding is adjusted using the gross domestic product price index.
- d. This option reflects the assumption that appropriations other than those for overseas contingency operations would generally be frozen at the 2014 amount through 2024.
- e. Medicare's current payment rates for physicians' services are scheduled to drop by 24 percent on April 1, 2015, and to change by small amounts in subsequent years. In this alternative, payment rates are assumed to continue at their current levels through 2024.
- f. The Budget Control Act of 2011 specified that if lawmakers did not enact legislation originating from the Joint Select Committee on Deficit Reduction that would reduce projected deficits by at least \$1.2 trillion, automatic procedures would go into effect to reduce both discretionary and mandatory spending during the 2013–2021 period. Those procedures are now in effect and take the form of equal cuts (in dollar terms) in funding for defense and nondefense programs. For the 2016–2021 period, the automatic procedures lower the caps on discretionary budget authority specified in the Budget Control Act (caps for 2014 and 2015 were revised by the Bipartisan Budget Act of 2013); for the 2022–2024 period, CBO has extrapolated the reductions estimated for 2021. Nonexempt mandatory programs will be reduced through sequestration; those provisions have been extended through 2024. The budgetary effects of this option cannot be combined with those of any of the alternatives that affect discretionary spending other than the one to reduce the number of troops deployed for overseas contingency operations.
- g. These estimates are mainly from the staff of the Joint Committee on Taxation and are preliminary. They reflect the impact of extending about 70 tax provisions. Nearly all of those provisions have been extended previously; some, such as the research and experimentation tax credit, have been extended multiple times.

2014, discretionary spending would be \$718 billion higher for that period than it is in the baseline. If, by contrast, lawmakers kept appropriations for 2015 through 2024 at the nominal 2014 amount, total discretionary outlays would be \$668 billion lower over that period. Under that scenario (sometimes called a freeze in regular appropriations), total discretionary spending would fall from 6.8 percent of GDP in fiscal year 2014 to 4.5 percent in 2024.

**Medicare's Payments to Physicians**

Spending for Medicare's payments to physicians is constrained by a rate-setting system called the sustainable growth rate. If the system is allowed to operate as currently structured, the fees that physicians receive for their services will be reduced by about 24 percent in April 2015 and will increase and decrease by small amounts in subsequent years, CBO projects. If, instead, lawmakers overrode those scheduled reductions—as they have every

year since 2003—spending on Medicare would be greater than the amounts projected in CBO’s baseline. For example, holding payment rates through 2024 at current levels would raise outlays for Medicare (net of premiums paid by beneficiaries) by \$131 billion (or about 2 percent) between 2015 and 2024. The overall effect of the policy on Medicare (and on the deficit) would depend on whether lawmakers offset the effects of the change, as they often have done in the past, with other changes to reduce deficits.

### Automatic Spending Reductions

The Budget Control Act put in place automatic procedures to reduce discretionary and mandatory spending through 2021. Those procedures require equal reductions (in dollar terms) in defense and nondefense spending. The Bipartisan Budget Act canceled the reductions in discretionary budget authority for 2014 and 2015 and instead set new caps for those years. Other legislation extended the reductions to mandatory spending through 2024. If lawmakers chose to prevent those automatic cuts each year—starting in 2015 for mandatory programs and in 2016 for discretionary programs—without making other changes that reduced spending, total outlays over the 2015–2024 period would be \$874 billion (or about 2 percent) higher than the amounts in CBO’s baseline. Total discretionary outlays would be \$753 billion (or 6 percent) higher, and outlays from mandatory programs—most of which are not subject to sequestration—would be \$121 billion (or 0.4 percent) higher.<sup>20</sup>

### Revenues

A host of tax provisions, many of which have been extended repeatedly, have recently expired or are scheduled to expire over the next decade. If all of those provisions were permanently extended, CBO and the staff of the Joint Committee on Taxation (JCT) estimate, revenues would be lower—and outlays for refundable tax credits would be higher (although by a much smaller amount)—by a total of \$897 billion over the 2015–2024 period. Most of those tax provisions expired at the end of December 2013. They include a provision allowing businesses to immediately deduct 50 percent of new investments in equipment, which JCT estimates accounts

20. Because of interactions between the effects of different policy options, the estimated budgetary effects of this option cannot be added to the estimated budgetary effects of any of the alternatives that affect discretionary spending other than the one to reduce the number of troops deployed for overseas contingency operations.

for \$244 billion of the budgetary effects of extending all of the provisions.

The largest budgetary cost of extending all of the tax provisions is estimated to occur in 2015 because the estimates reflect the assumption that the provisions would be extended retroactively but too late for any budgetary effects to occur in 2014; those effects that would have occurred in 2014 would instead affect tax collections and payments for refundable tax credits in 2015. The estimated budgetary cost increases starting in 2019 because certain provisions affecting refundable tax credits are scheduled to expire at the end of December 2017. Extending those provisions would boost outlays for refundable credits and reduce revenues by a total of about \$163 billion over the 2019–2024 period. (Payments for refundable credits are typically made a year after the applicable tax year.)

### Changes in CBO’s Baseline Projections Since April 2014

CBO completed its previous set of baseline projections in April 2014. Since then, the agency has increased its estimate of the deficit in 2014 by \$14 billion, mostly because receipts from corporate income taxes are turning out to be less than CBO anticipated; in contrast, the agency has reduced its baseline projection of the cumulative deficit from 2015 to 2024 by \$422 billion. (For details on the revisions beyond those provided in this section, see Appendix A.)

CBO has lowered projected total outlays from 2015 through 2024 by \$753 billion (or about 2 percent):

- Projections of net interest payments, which have been reduced by \$618 billion, account for most of the total revision in outlays; about three-quarters of that reduction stems from lower projected interest rates (as discussed in Chapter 2).
- Mandatory spending in the baseline is lower by \$133 billion. Revisions to the economic forecast account for \$81 billion of that reduction, and technical changes account for an additional \$56 billion. Recently enacted legislation relating to veterans’ health care and the Highway Trust Fund partially offset those reductions, increasing mandatory outlays by \$5 billion over the 10-year period.

- Discretionary outlays in the baseline were reduced by \$2 billion, on net, over the 10-year period.

Partially offsetting the reduction in outlays, CBO has reduced its projection of total revenues between 2015 and 2024 by \$331 billion (or less than 1 percent). A revised economic outlook, primarily lower anticipated nominal GDP and lower taxable incomes (especially wages and salaries) as a percentage of GDP, reduced projected revenues by \$503 billion. Other, technical changes increased projected revenues by \$168 billion, and recently enacted legislation boosted them by an additional \$4 billion.

On net, for the 2015–2024 period, updates to CBO’s economic forecast produced the largest changes in projections of revenues and outlays; however, the effects of those changes largely offset one another across the two budget categories. Altogether, economic updates have lowered projected deficits over the projection period by \$69 billion. Technical changes in the revenue and outlay projections were smaller but not offsetting, reducing projected deficits by \$357 billion, while legislative changes increased deficits by \$4 billion.



## The Economic Outlook

T

he Congressional Budget Office (CBO) anticipates that, under the assumption that current laws governing federal taxes and spending generally remain in place, the economy will grow slowly this year, on balance, and then at a faster but still moderate pace over the next few years. In the first half of this year, real (inflation-adjusted) gross domestic product (GDP) rose at an average annual rate of just 0.9 percent; but CBO expects a stronger second half, so for the year as a whole, the agency projects the rate of growth to be 1.5 percent, as measured by the change from the fourth quarter of 2013.<sup>1</sup> CBO anticipates that the economy will expand more rapidly during the remainder of 2014 in part because the effects of some factors that held down growth in the first part of the year, such as bad weather, have abated and because recent data, particularly for employment, indicate that the economic expansion is on firmer ground.

CBO projects that the growth of real GDP will increase after this year, to an annual average rate of 3.4 percent from the fourth quarter of 2014 through the fourth quarter of 2016, before moderating in subsequent years. CBO expects that growth over the next few years will be stronger than it will be this year for three main reasons:

- In response to increased demand for their goods and services, businesses will increase their investments in new structures and equipment at a faster pace and will continue to expand their workforces;

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1. CBO's economic projections, which were completed in early July, do not reflect the annual revision of the national income and product accounts released by the Bureau of Economic Analysis on July 30, 2014. That revision indicates that economic growth was stronger during 2013 and in early 2014 than had been previously estimated and that inflation (as measured by the GDP price index) was slightly lower. However, the revision does not significantly alter CBO's general view of the economic outlook.

- Consumer spending will also grow more rapidly, spurred by recent gains in household wealth and—with an improving labor market—gains in labor income; and
- Fewer vacant housing units, more rapid formation of new households, and further improvement in mortgage markets will lead to larger increases in home building.

The faster growth of output will reduce the amount of underutilized productive resources—or “slack”—in the economy over the next few years. CBO estimates that GDP was about 4 percent less than its potential (maximum sustainable) value at the end of last year. With GDP projected to grow faster than potential GDP in the second half of this year and the next three years, that shortfall is expected to narrow to its historical average by the end of 2017.

Similarly, the slack in the labor market—reflected in both an elevated unemployment rate and temporary weakness in labor force participation resulting from limited job prospects—is expected to largely disappear by the end of 2017. CBO projects that increased hiring will reduce the unemployment rate from 6.2 percent in the second quarter of 2014 to 5.6 percent in the fourth quarter of 2017, close to CBO's estimate of the natural rate of unemployment (the rate arising from all sources except fluctuations in the overall demand for goods and services). CBO also expects that the greater hiring will encourage some people to re-enter the labor force, slowing both the decline in the unemployment rate and the decline in labor force participation that would result from underlying demographic trends and federal policies alone. In CBO's projections, the labor force participation rate—the percentage of people in the civilian noninstitutionalized population who are age 16 or older and are either working or actively seeking work—falls from 62.8 percent in the second

quarter of 2014 to 62.3 percent in the fourth quarter of 2017.

Reduced slack in the economy will remove some of the downward pressure on the rate of inflation and interest rates that has been seen in the past several years. However, with some slack remaining and with broadly held expectations for low inflation, CBO projects that the rate of inflation as measured by the price index for personal consumption expenditures (PCE) will remain below the Federal Reserve's goal of 2 percent during the next few years. CBO anticipates that the interest rate on 3-month Treasury bills will remain near zero until the second half of 2015 and then rise to an average of 2.1 percent in 2017; the rate on 10-year Treasury notes is projected to rise from an average of 2.4 percent last year to 4.2 percent in 2017.

CBO's projections for 2018 and later years exclude possible cyclical developments in the economy, because CBO does not attempt to predict fluctuations in the economy that far into the future. In CBO's projections, real GDP grows by 2.2 percent per year on average from 2018 through 2024—a rate that matches the agency's estimate of the growth of potential output in those years. However, that projected growth of potential output is notably less than the average growth of potential output during the 1980s and 1990s, primarily reflecting these factors:

- The retirement of members of the baby-boom generation;
- The relatively stable labor force participation rate among working-age women after decades of strong increases; and
- Federal tax and spending policies embodied in current law.

In addition, the lingering effects of the recent recession and ensuing slow recovery will cause the level of GDP to be lower during the 2018–2024 period than it otherwise would be.

By 2024, the unemployment rate will fall to 5.5 percent, and between 2018 and 2024, inflation (as measured by the PCE price index) will average 2.0 percent, CBO projects. The interest rate on 3-month Treasury bills will average 3.4 percent during the 2018–2024 period, while the rate on 10-year Treasury notes will average

4.7 percent during that time, according to CBO's projections.

The economic expansion has exhibited unusual features that have been hard to predict, and the path of the economy in coming years is also likely to be surprising in various ways. Many developments—such as unforeseen changes in the growth rates of productivity, the labor force, and the number of households; unanticipated changes in household wealth and business investment; and changes in laws governing federal taxes and spending—could cause economic outcomes to diverge substantially, in one direction or the other, from those CBO has projected.

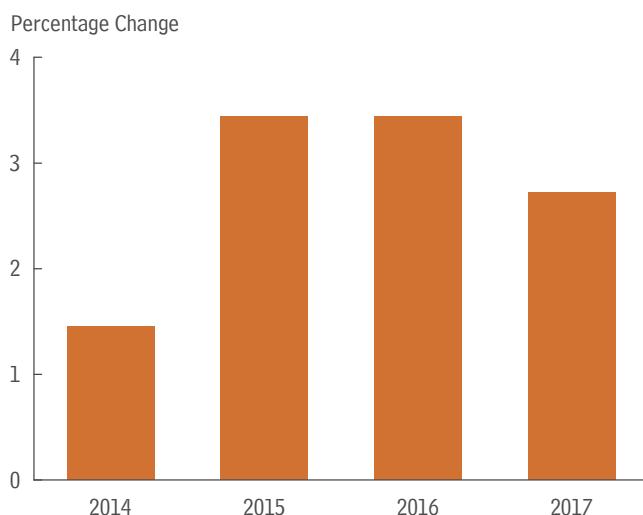
CBO's current economic projections differ in some respects from those the agency issued in February 2014, and from projections by other forecasters.<sup>2</sup> For instance, CBO has significantly lowered its projection of growth in real GDP for 2014, reflecting surprising economic weakness in the first half of the year. However, the level of real GDP over most of the coming decade is projected to be only modestly lower than was projected in February. In addition, CBO now forecasts lower interest rates throughout the projection period and a lower unemployment rate for the next six years; the latter revision reflects a larger-than-expected decline in that rate in late 2013 and early 2014. CBO's current economic projections differ only slightly from the August 2014 *Blue Chip* consensus forecast (which is based on the forecasts of about 50 private-sector economists) and the June 2014 forecasts by members of the Federal Reserve Board and presidents of the Federal Reserve Banks—mainly in that CBO expects a more delayed increase in GDP growth.

## The Economic Outlook Through 2017

CBO expects that real GDP—after declining at an annual rate of 2.1 percent in the first quarter and increasing at an annual rate of 3.9 percent in the second quarter—will grow slowly this year, on balance, and then at a faster but moderate pace over the next few years (see Figure 2-1 and Table 2-1). Specifically, CBO anticipates that real GDP will grow by 1.5 percent this year, at an annual average rate of 3.4 percent from the fourth quarter

2. For CBO's previous economic projections, see Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024* (February 2014), [www.cbo.gov/publication/45010](http://www.cbo.gov/publication/45010).

**Figure 2-1.**  
**CBO's Projections of Real GDP**



Source: Congressional Budget Office.

Notes: Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation.

Data are annual. The percentage growth of GDP is measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

of 2014 through the fourth quarter of 2016, and by 2.7 percent in 2017.

The outlook for the next few years reflects CBO's view that, under current law, federal fiscal policy (the government's tax and spending policies) will contribute little to changes in economic growth from next year through 2017, and that monetary policy (the policies of the Federal Reserve that affect interest rates and the availability of credit) will continue to support a pickup in economic growth. Relative to 2014, more rapid increases in business investment, consumer spending, and residential investment will contribute significantly to the overall pickup in real GDP growth, CBO projects; net exports will also make a larger contribution to growth over time. Changes in the amount of purchases of goods and services by federal, state, and local governments (the component of government spending that is counted in GDP) contribute only modestly to the projected strengthening of growth.

The faster growth of output will bolster the demand for labor, slowing the ongoing decline in labor force participation and lowering the unemployment rate. With

GDP projected to grow faster than potential GDP, CBO expects that by the end of 2017 the gap between actual and potential output will narrow to  $\frac{1}{2}$  percent, roughly matching the average gap from 1960 to 2007. Reduced slack in the economy will remove some of the downward pressure on the rate of inflation seen in recent years.

### Federal Fiscal Policy

CBO estimates that, under current law, differences over time in federal tax and spending policies will have only a small effect on the growth in output from 2015 through 2017.<sup>3</sup> In CBO's baseline, real federal purchases of goods and services are projected to change little in 2015 and 2016 and then to decline modestly in 2017 (as described in more detail below). In addition, differences over time in taxes and other types of federal spending are expected to contribute little to changes in other purchases of goods and services, including business investment, consumer spending, residential investment, and net exports. Nonetheless, federal fiscal policies are projected to exert some downward pressure on labor force participation over the next few years (as discussed in more detail later).

### Monetary Policy and Interest Rates

CBO expects that monetary policy will continue to support an improvement in economic growth during the next few years because some slack will persist in the labor market and inflation will stay below the Federal Reserve's goal. The Federal Reserve has stated that it expects to keep its target for the federal funds rate (the interest rate on overnight lending among banks, which is adjusted by the central bank as one of its principal tools for conducting monetary policy) near zero for a considerable time, especially if conditions in the labor market signal that the statutory objective of maximum employment has not been reached and if inflation and expectations for inflation remain low. CBO projects that the federal funds rate

3. In 2013, changes in federal tax and spending policies reduced output growth by roughly  $1\frac{1}{2}$  percentage points, CBO estimates, because certain reductions in taxes expired and certain cuts in federal spending took effect, reducing the total demand for goods and services. This year, changes in fiscal policy will reduce output growth by just  $1\frac{1}{4}$  percentage point, according to CBO's estimates. That effect largely results from the expiration at the end of 2013 of extended unemployment insurance (which had helped some households maintain their spending) and bonus depreciation allowances (which had encouraged investment by permitting businesses to deduct new investment from taxable income more rapidly than without the allowances).

**Table 2-1.****CBO's Economic Projections for Calendar Years 2014 to 2024**

	Forecast				Projected Annual Average, 2018–2024
	2014	2015	2016	2017	
<b>Percentage Change From Fourth Quarter to Fourth Quarter</b>					
Gross Domestic Product					
Real (Inflation-adjusted)	1.5	3.4	3.4	2.7	2.2
Nominal	3.2	5.2	5.3	4.7	4.2
Inflation					
PCE price index	1.9	1.7	1.8	1.9	2.0
Core PCE price index <sup>a</sup>	1.6	1.9	1.9	1.9	2.0
Consumer price index <sup>b</sup>	2.5	1.9	2.0	2.2	2.4
Core consumer price index <sup>a</sup>	1.9	2.2	2.2	2.3	2.3
GDP price index	1.8	1.7	1.8	1.9	2.0
Employment Cost Index <sup>c</sup>	1.9	3.0	3.5	3.7	3.4
<b>Fourth-Quarter Level (Percent)</b>					
Unemployment Rate	5.9	5.8	5.7	5.6	5.5 <sup>d</sup>
<b>Percentage Change From Year to Year</b>					
Gross Domestic Product					
Real	1.5	3.2	3.5	3.0	2.2
Nominal	3.2	5.0	5.3	5.0	4.2
Inflation					
PCE price index	1.5	1.8	1.8	1.8	2.0
Core PCE price index <sup>a</sup>	1.4	1.8	1.9	1.9	2.0
Consumer price index <sup>b</sup>	2.0	2.1	2.0	2.1	2.4
Core consumer price index <sup>a</sup>	1.8	2.1	2.2	2.3	2.3
GDP price index	1.7	1.8	1.7	1.9	2.0
Employment Cost Index <sup>c</sup>	1.8	2.8	3.4	3.7	3.5
<b>Calendar Year Average</b>					
Unemployment Rate (Percent)	6.2	5.9	5.7	5.7	5.6
Payroll Employment (Monthly change, in thousands) <sup>e</sup>	206	134	122	117	83
Interest Rates (Percent)					
Three-month Treasury bills	0.1	0.3	1.1	2.1	3.4
Ten-year Treasury notes	2.8	3.3	3.8	4.2	4.7
Tax Bases (Percentage of GDP)					
Wages and salaries	42.8	42.7	42.5	42.6	43.0
Domestic economic profits	9.2	9.3	9.4	9.3	7.9

Source: Congressional Budget Office.

Notes: Economic projections for each year from 2014 to 2024 appear in Appendix B.

PCE = personal consumption expenditures; GDP = gross domestic product.

a. Excludes prices for food and energy.

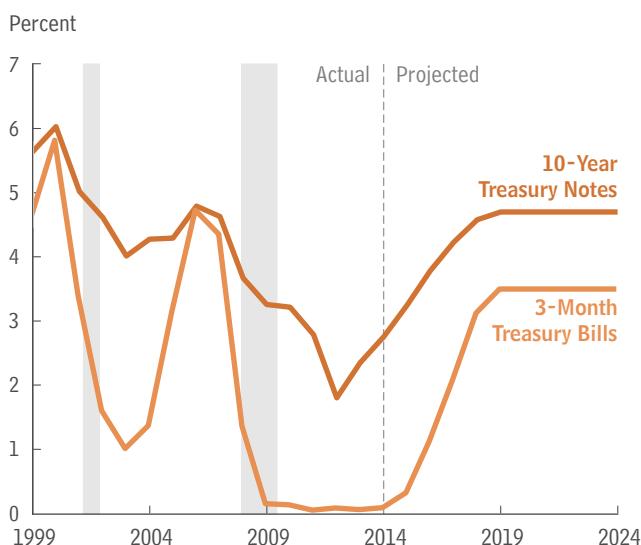
b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industries.

d. Value for 2024.

e. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.

**Figure 2-2.**  
**Interest Rates on Treasury Securities**



Sources: Congressional Budget Office; Federal Reserve.

Note: Data are annual. Actual data are plotted through 2013.

will remain near zero until the second half of 2015 and then rise considerably, averaging 2.4 percent in 2017 (and stabilizing at 3.8 percent later in the projection period). CBO expects the Federal Reserve to conclude its program of purchasing long-term Treasury securities and mortgage-backed securities in the fourth quarter of this year, at which point the Federal Reserve's assets will amount to nearly \$4.5 trillion.

CBO projects that the interest rate for 3-month Treasury bills will remain near zero until the second half of 2015 and then increase to an average of 2.1 percent in 2017 and 3.4 percent in later years (see Figure 2-2 and Table 2-1). Those estimates are broadly consistent with expectations for short-term interest rates as indicated by prices in financial markets. In addition, according to CBO's projections, the interest rate on 10-year Treasury notes will rise from an average of 2.4 percent last year to 4.2 percent in 2017 and to 4.7 percent in later years. That rate will be pushed up by market participants' expectations of an improving economy, the rise in short-term interest rates, and an end to the Federal Reserve's purchases of long-term Treasury securities and mortgage-backed securities, CBO anticipates.

## Contributions to the Growth of GDP

CBO expects that the economy will grow slowly, on balance, this year and then at a faster but still moderate pace next year and over the following two years. In CBO's view, that increase in the growth of GDP will be largely driven by stronger growth in business investment, consumer spending, and residential investment (see Figure 2-3). Changes in the amount of net exports will diminish growth by less next year than it will this year, and will add to growth in later years, CBO expects. Changes in the amount of government purchases are projected to have only a small effect on GDP growth.

**Business Investment.** More rapid growth in investment by businesses will contribute significantly to the faster growth of real GDP over the next few years, CBO projects: For example, business investment will add 0.9 percentage points more to economic growth in 2015 than in 2014, according to CBO's forecast (see Figure 2-3).

CBO anticipates that much of the increase in the contribution to growth in 2015 will be attributable to real investment in inventories, which is expected to be sharply lower in the fourth quarter of 2014 than it was in the fourth quarter of 2013, thus subtracting from the growth of GDP this year. In contrast, inventory investment is projected to have little effect on GDP growth from 2015 to 2017; that difference will boost economic growth in those years compared with growth in 2014.

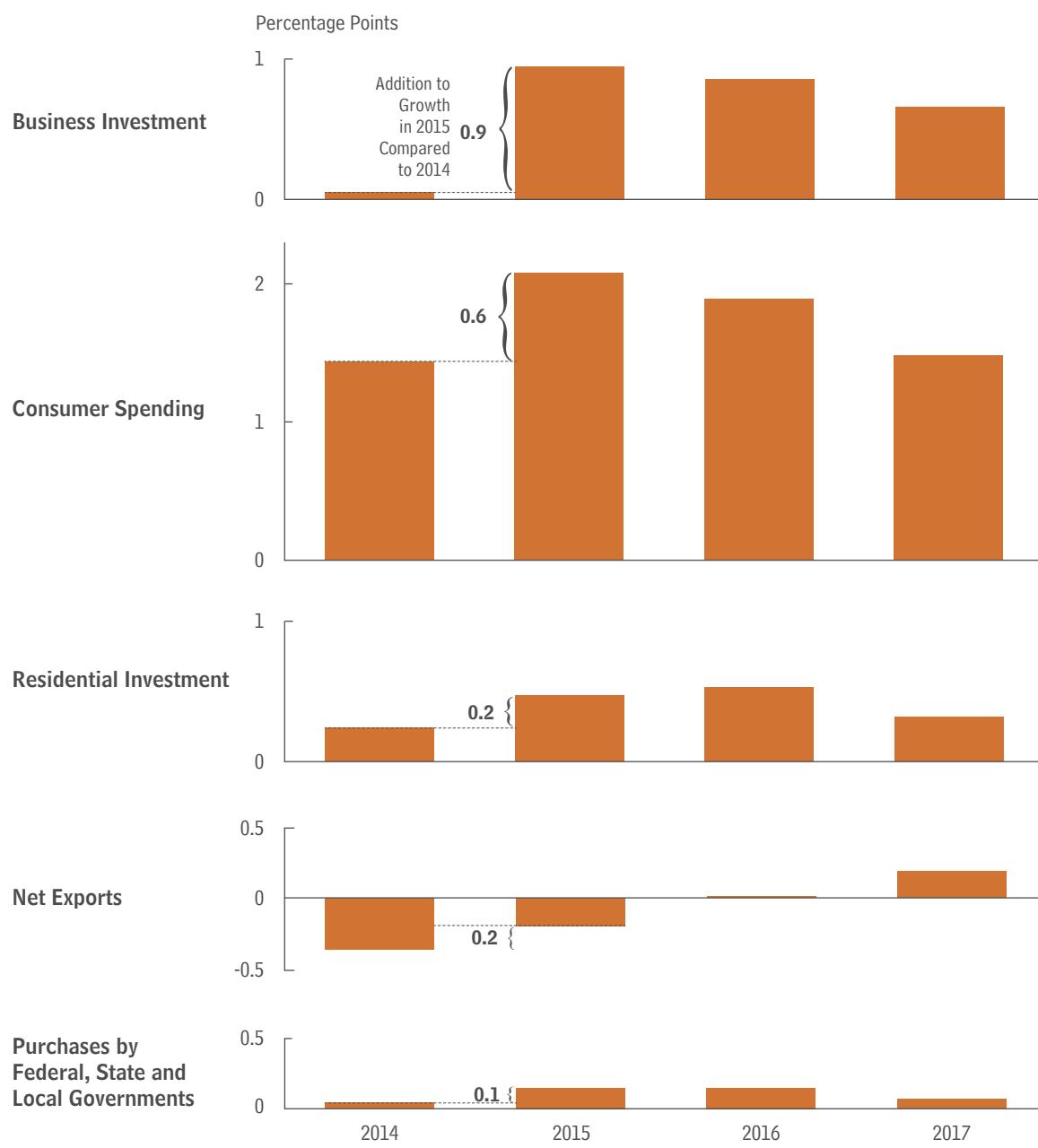
Businesses' real fixed investment (purchases of equipment, structures, and intellectual property products) is also expected to add to growth in the next few years.<sup>4</sup> Over the 2015–2017 period, as businesses replace depreciating capital and expand productive capacity in response to rising demand, the annual growth of such investment is projected to average 6.4 percent—compared with a 3.9 percent increase in 2013.

Investment by businesses has been weak since the recession largely, in CBO's judgment, because weak demand for firms' products has limited firms' incentive to expand their productive capacity. Over the next few years, as the effects of weak growth in demand since the recession

4. Intellectual property products constitute a fairly new category of business investment in the Bureau of Economic Analysis's national income and product accounts. That category, which was added to those accounts last year, includes software, research and development, and original entertainment, literary, and artistic works.

**Figure 2-3.****Contributions to the Growth of Real GDP**

More rapid growth in business investment and consumer spending will significantly boost economic growth in 2015, CBO projects.



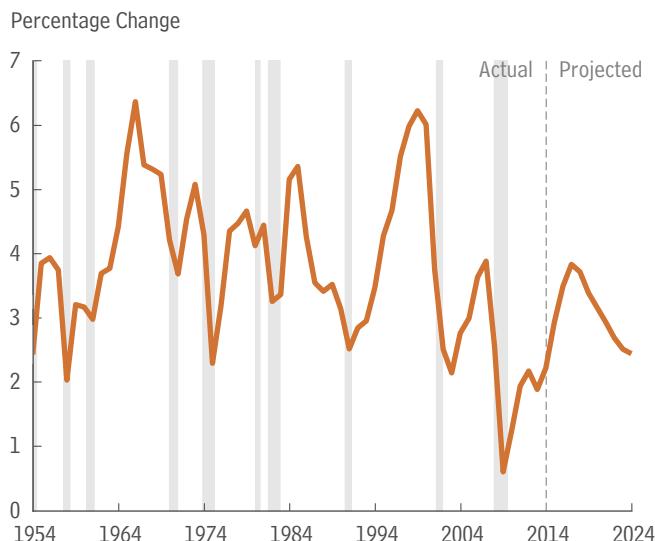
Source: Congressional Budget Office.

Note: Data are annual. The values show the percentage-point contribution of the major components of gross domestic product (GDP) to the fourth-quarter-to-fourth-quarter growth rate of real GDP (output adjusted to remove the effects of inflation). Business investment includes purchases of equipment, nonresidential structures, and intellectual property products and the change in inventories. Consumer spending is personal consumption expenditures. Residential investment includes the construction of single-family and multifamily structures, manufactured homes, and dormitories; spending on home improvements; and brokers' commissions and other ownership-transfer costs. Net exports are exports minus imports. The measure of purchases by federal, state, and local governments is taken from the national income and product accounts.

## Figure 2-4.

### Capital Services

Over the next few years, business investment is likely to grow more rapidly as the effects of weak demand for goods and services fade, boosting businesses' incentive to increase capital services.



Source: Congressional Budget Office.

Notes: Capital services are a measure of the flow of services available for production from the real (inflation-adjusted) stock of capital (equipment, structures, intellectual property products, inventories, and land).

Data are annual. Percentage changes are measured from the average of one calendar year to the next. Actual data are plotted through 2013.

fade, investment by businesses is likely to grow at a faster pace, reflecting their greater incentive to increase capital services (the flow of services available for production from the stock of capital; see Figure 2-4). CBO anticipates that the pickup in growth over the next few years will be greater for investment in nonresidential structures than for investment in equipment and intellectual property products because investment in structures is projected to be surprisingly weak this year, even after accounting for growth in demand for goods and services.

**Consumer Spending.** CBO expects spending on consumer goods and services to grow faster over the next few years than in 2014. In CBO's forecast, real consumer spending grows at an average annual rate of 2.1 percent in 2014, reflecting weak spending growth in the first half of the year and projected stronger growth in the second half of the year. CBO anticipates strong growth in real

consumer spending in 2015 and 2016, nearly 3 percent on average during those years, and more moderate growth in 2017. With consumer spending accounting for about two-thirds of GDP, the faster projected growth in such spending contributes significantly to the projected pickup in overall economic growth—adding 0.6 percentage points more to the growth of GDP in 2015 than in 2014 (see Figure 2-3 on page 34).

CBO expects that consumer spending in the next few years will be bolstered by recent strong gains in household wealth, more rapid growth in real disposable (after-tax) personal income, and continued easing in conditions for borrowing by consumers. Rising prices for residential real estate and for equities have continued to increase household wealth, which is likely to boost consumer spending through mid-2015. CBO expects that the prices of homes and stocks will increase more slowly in coming years than they have in recent years, and the resulting moderation of gains in wealth will mean less support for the growth of consumer spending after mid-2015.

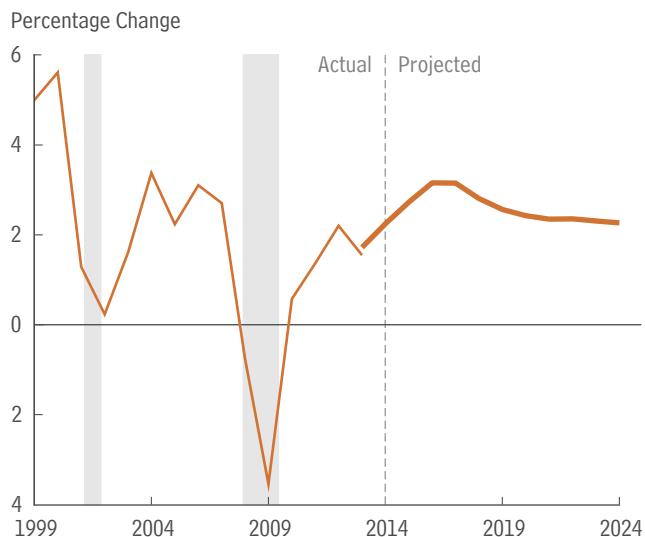
Growth in people's income will also support increased growth in consumer spending during the next few years, CBO expects. Real disposable personal income is projected to rise by about 2 percent this year and by an average of about 3 percent per year from 2015 through 2017, after falling by about 2 percent in 2013. That faster growth between 2015 and 2017 will reflect more rapid increases in the total compensation of employees as growing demand for labor increases average hourly compensation (see Figure 2-5).

Another reason for faster growth in consumer spending, in CBO's view, will be improvements in households' creditworthiness and in the availability of credit. Delinquency rates on consumer loans and home mortgage loans have continued to fall this year, and banks' willingness to make consumer loans has continued to rise. The ratio of household liabilities to disposable personal income, which had fallen markedly since the end of the recession in 2009, has begun to stabilize—suggesting some combination of an increase in households' demand for loans and an increase in the willingness of financial institutions to lend. CBO expects further improvement in households' creditworthiness and the availability of credit to boost consumer spending over the next few years.

## Figure 2-5.

### Real Compensation of Employees

Faster growth in the compensation of employees will support faster growth in consumer spending in the next few years.



Sources: Congressional Budget Office; Bureau of Economic Analysis.

Notes: Data are annual. Percentage changes are measured from the average of one calendar year to the next. Values from 1999 through 2013 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014. Values from 2013 through 2024 (the thick line) reflect the data available and projections made before July 30.

Real compensation of employees is total wages, salaries, and supplements adjusted for inflation using the price index for personal consumption expenditures.

**Residential Investment.** CBO expects the growth rate of residential investment to be much higher in 2015 and 2016 than it is likely to be this year: Real residential investment will grow by 8 percent this year and by 14 percent next year and the following year, CBO projects.<sup>5</sup> As a result, such investment is expected to contribute more to overall economic growth in the next few years than it has in recent years, although the small size of the sector limits its contribution. In CBO's projections, the faster pace of residential investment next year adds

5. Residential investment consists primarily of construction of new housing units, improvements of existing units, and brokers' commissions and other closing costs. In addition, it includes construction of dormitories, purchases of manufactured housing, and net purchases of structures from other sectors (for example, the purchase of a school that is then converted into apartments).

0.2 percentage points more to GDP growth in 2015 than it did in 2014 (see Figure 2-3 on page 34). Moreover, because many people buy furniture and other durable goods when they purchase homes, growth of residential investment also will support the pickup in consumer spending.

In CBO's estimation, the key factor generating faster growth in residential investment in 2015 and 2016 is a decline in the vacancy rate (the fraction of homes without full-time occupants). The vacancy rate soared beginning in 2006 because of a combination of overbuilding and, later, the adverse effects of rising unemployment and tight lending conditions on the formation of new households. However, too few new homes have been built in the past few years to accommodate even the weak growth in the demand for housing, so the vacancy rate has fallen considerably.

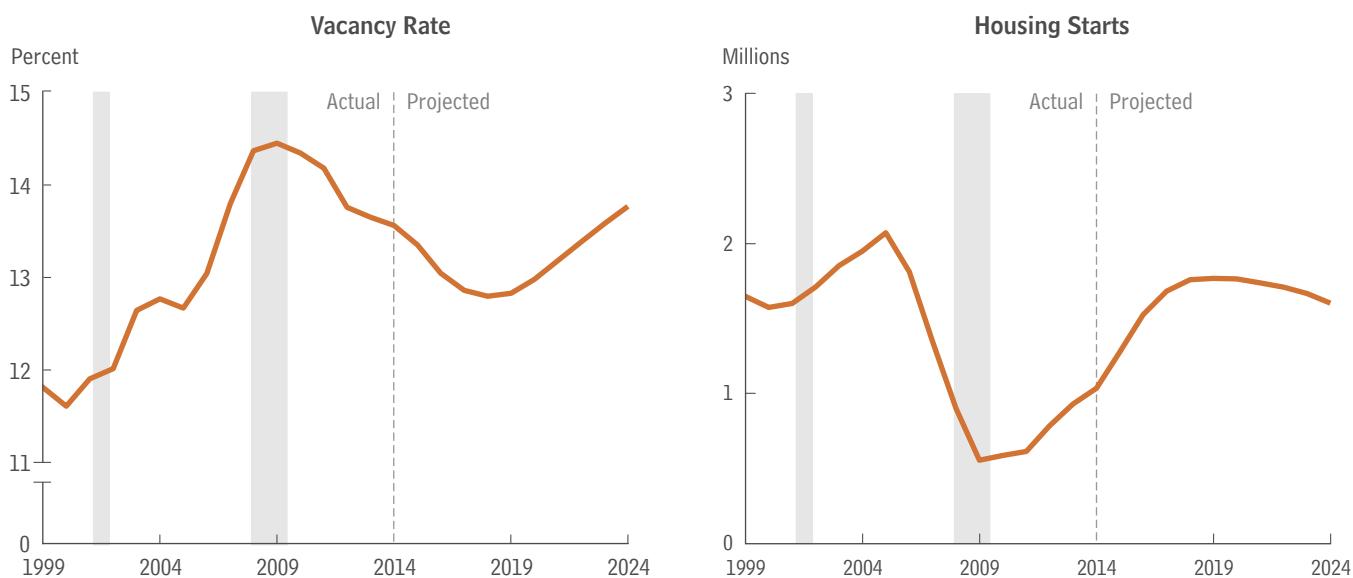
The vacancy rate is likely to fall further over the next several years, in CBO's estimation, primarily because of an increase in the pace of household formation. Household formation has been surprisingly weak since 2012, given the increase in employment, probably in part because lending standards for mortgages have remained fairly tight (despite recent improvements). In addition, household formation may have been weak because young adults with student loans are unable or unwilling to obtain a mortgage or because households' expectations for income growth have been slow to improve. CBO anticipates that household formation will increase over the next few years, despite the negative effects of a rise in mortgage interest rates, because of further strengthening in the labor market and expanding access to mortgage credit.

As a result of the declining vacancy rate, CBO expects housing starts (the number of new privately owned housing units on which construction begins in a given period) to post strong growth over the next few years—increasing from 1.0 million in 2014 to roughly 1.7 million in 2017 (see Figure 2-6). Because a large share of residential investment stems from housing starts, CBO projects residential investment to grow rapidly as well.

CBO anticipates that stronger growth in demand for housing will put upward pressure on house prices. That upward pressure will be mitigated to some degree by the projected increase in the supply of housing units

**Figure 2-6.****Vacancy Rate and Housing Starts**

In the next few years, as the percentage of homes that are vacant continues to fall, housing starts will continue to rise.



Sources: Congressional Budget Office; Bureau of the Census.

Notes: The vacancy rate is the percentage of housing units not occupied on a full-time basis.

Housing starts are the number of privately owned housing units for which ground is broken in a given period throughout the United States.

The rise in the vacancy rate in the later part of the projection period is primarily a continuation of an upward trend stemming from increased ownership of second homes.

Data are annual. Actual data are plotted through 2013.

stemming from increased construction. CBO projects that, on balance, as measured by the Federal Housing Finance Agency's (FHFA's) price index for home purchases, house prices will increase by about 4½ percent in 2014 and by about 2¼ percent per year, on average, over the 2015–2017 period. In CBO's forecast, FHFA's index of house prices surpasses its prerecession peak in 2017 (without any adjustment for inflation).

**Net Exports.** CBO expects that net exports (exports minus imports) will impose less of a drag on GDP growth next year than this year (see Figure 2-3 on page 34). Real net exports are projected to decline by about \$55 billion in the fourth quarter of 2014 relative to the fourth quarter of 2013, dampening GDP growth by about 0.4 percentage points.<sup>6</sup> Next year, net exports are expected to decline further, but by a smaller amount—roughly \$30 billion. As a result, net exports are projected to reduce GDP growth by a smaller amount next year

than this year—thereby contributing about 0.2 percentage points to the pickup in GDP growth next year.

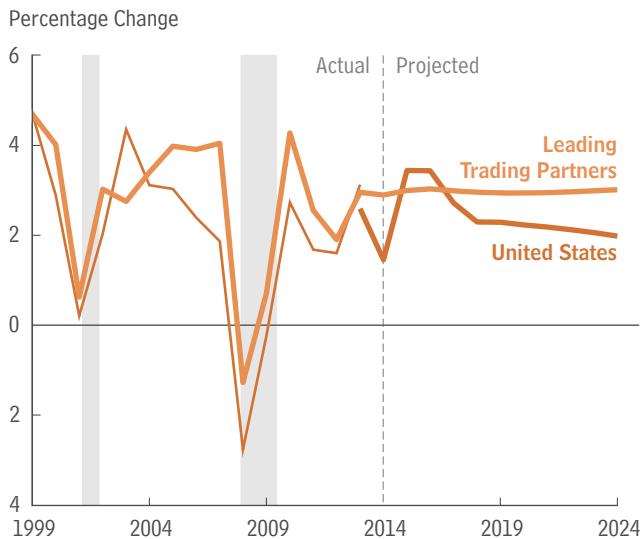
CBO projects that, after reducing GDP growth in 2014 and 2015, net exports will have little effect on growth in 2016 and will add slightly to it in 2017. Those projections largely reflect two factors, which will have different effects on net exports over time: First, CBO expects that growth in the United States will outpace average growth among the major U.S. trading partners in 2015 and 2016 but not in subsequent years (see Figure 2-7). That growth pattern will put downward pressure on real net exports during the next two years. Second, CBO anticipates that a gradual decline in the exchange value of the dollar (a weighted average of the exchange rates between the

6. Those net exports are negative, meaning that the United States is importing more than it is exporting. A decrease in net exports indicates a growing gap between exports and imports.

**Figure 2-7.**

## Real GDP in the United States and Among Its Leading Trading Partners

The U.S. economy is projected to grow faster in 2015 and 2016 than those of its leading trading partners, putting downward pressure on net exports during those years.



Sources: Congressional Budget Office; Bureau of Economic Analysis; Consensus Economics.

Notes: The percentage change in real (inflation-adjusted) gross domestic product (GDP) among the United States' leading trading partners is calculated using an average of the rates of growth of their real GDPs, weighted by their shares of U.S. exports. The trading partners included in the average are Australia, Brazil, Canada, China, Hong Kong, Japan, Mexico, Singapore, South Korea, Switzerland, Taiwan, the United Kingdom, and the countries of the euro zone.

Data are annual. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year. For the United States, values from 1999 through 2013 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014. Values from 2013 through 2024 (the thick line) reflect the data available and projections made before July 30.

U.S. dollar and the currencies of major U.S. trading partners using shares of U.S. trade as weights) in 2015 and later years will reduce the foreign-currency price of U.S. exports and increase the domestic price of U.S. imports, thus tending to increase net exports.

In CBO's estimation, both advanced and emerging foreign economies will grow modestly in the next few years. The economies of the euro zone will continue their frag-

ile recovery as recent changes in monetary policy by the European Central Bank are expected to support growth and stabilize inflation (which has been falling).<sup>7</sup> Among emerging market economies, growth rates in China and Mexico are projected to return to their previous trend in the second half of 2014 and beyond, after slowdowns in growth in the past year.<sup>8</sup>

By CBO's projections, the exchange value of the dollar will remain steady in 2014 and 2015 before resuming a decline that has been the trend since 2002. The agency expects the value of the dollar to remain stable throughout this year and next largely because CBO anticipates that U.S. monetary policy will be roughly in line with current market expectations. (Last year, for example, the dollar's movements closely tracked changes in market assessments of U.S. monetary policy.) In later years, CBO expects that global factors will play a larger role in determining the exchange value of the dollar, as rising interest rates among major trading partners (relative to rates in the United States) are likely to reduce the international demand for U.S. assets and therefore cause the exchange value of the dollar to decline slowly.

**Government Purchases.** CBO projects that real purchases of goods and services by governments at the federal, state, and local levels (the portion of government spending directly included in GDP) will contribute positively to output growth over the 2015–2017 period after contributing little to growth in 2014 and dampening growth in recent years.

That pickup in the contribution in future years is more than accounted for by rising real purchases by state and local governments. Such purchases fell in most of the years after the recession as the weak economy and sharp drop in house prices reduced the growth of revenues received by those governments. Facilitated by more rapid increases in revenues—stemming from the strengthening economy and renewed growth in the prices of houses—real purchases by state and local governments are projected to increase slightly this year, and, in CBO's view, will grow at a modest pace, averaging about 1 percent per year, after 2014.

7. Consensus Economics, *Consensus Forecasts* (August 2014), <http://tinyurl.com/l836omm>.
8. Consensus Economics, *Asia Pacific Consensus Forecasts* (August 2014), <http://tinyurl.com/qhq6sjz>; and *Latin American Consensus Forecasts* (August 2014), <http://tinyurl.com/nn4w5xl>.

Real spending by the federal government on goods and services—mostly stemming from discretionary appropriations—is expected to grow modestly between the fourth quarter of calendar year 2013 and the same quarter this year, after declining in the previous three years. (The government’s discretionary spending has declined in nominal terms over the past few years as a result of the waning of spending authorized by the American Recovery and Reinvestment Act of 2009, declining funding for military operations in Iraq and Afghanistan, and the curtailing of spending stemming from provisions of the Budget Control Act of 2011, as amended.) Over the next few years, under baseline assumptions, discretionary spending is projected to grow slowly. Nonetheless, after adjusting for inflation, real federal purchases of goods and services are projected to change little in calendar years 2015 and 2016 and then to decline modestly in 2017, consistent with CBO’s projections for federal outlays, as described in Chapter 1.

## The Labor Market

Although conditions in the labor market have improved notably in recent quarters, a significant amount of slack remains, in CBO’s estimation.<sup>9</sup> However, measuring slack is quite difficult—especially given the unusual developments in the labor market since the recession ended—and the current amount of slack could be a good deal larger or smaller than CBO estimates. In CBO’s judgment, ongoing gains in employment will largely eliminate the existing slack during the next few years.

**Slack in the Labor Market in 2014.** Broadly speaking, slack in the economy refers to underutilized productive resources, including business equipment and structures that are idle, houses that are unoccupied, and people who would like to work but are not working (or who are employed but would like to work longer hours). In CBO’s view, the current slack in the labor market consists of several elements, including the following:

- The labor force participation rate is well below what CBO estimates would be achieved if the demand for workers was currently stronger—that is, well below the potential participation rate that reflects the estimated effects both of demographics (such as the age distribution of the population) and of the number

9. For a more detailed discussion of developments in the labor market, see Congressional Budget Office, *The Slow Recovery of the Labor Market* (February 2014), [www.cbo.gov/publication/45011](http://www.cbo.gov/publication/45011).

of people who have left the labor force permanently in response to the recession and slow recovery;

- The unemployment rate is above CBO’s estimate of the natural rate; and
- The share of part-time workers who would prefer full-time work is significantly higher than it was before the recession.

One important signal that significant slack remains in the labor market is continued slow growth in hourly labor compensation.

*Labor Force Participation Rate.* The labor force participation rate fell from 65.9 percent in the fourth quarter of 2007, at the beginning of the recent recession, to 62.8 percent in the second quarter of 2014.

CBO estimates that about  $\frac{3}{4}$  percentage point of the decline since late 2007 represents the extent to which actual participation is below potential participation because of the contemporaneous weakness in both employment prospects and in wages.<sup>10</sup> That amount is only slightly less than the effect CBO estimates for the fourth quarter of 2013, when the estimated shortfall of the actual participation rate relative to the potential participation rate was at its largest.

According to CBO’s analysis, most of the decline in the rate of labor force participation since late 2007 is attributable to two other factors: First, long-term trends, especially the aging of the population, account for about  $1\frac{1}{2}$  percentage points of the decline. Second, unusual aspects of the slow recovery of the labor market that led workers to become discouraged and permanently drop out of the labor force account for about  $\frac{3}{4}$  percentage point of the decline.

10. In February 2014, CBO estimated that as of the fourth quarter of 2013 about 1 percentage point of the decline in participation could be attributed to contemporaneous weakness in employment prospects and wages. The smaller estimate provided here in part reflects improving cyclical conditions during the first half of 2014, which reduce the impact of contemporaneous weakness. In addition, the rapid decline in the unemployment rate in the first half of this year without a notable increase in the labor force participation rate led CBO to conclude that a larger share of the decline in participation between 2007 and 2013 should be attributed to permanent departures from the labor force in response to the recession and slow recovery and that a smaller share should be attributed to temporary departures.

*Unemployment Rate.* The unemployment rate stood at 6.2 percent in the second quarter of this year, roughly 1½ percentage points above its level before the recession.

CBO estimates that about ½ percentage point of that increase reflects temporary cyclical weakness in the economy—much less than the peak effect of temporary weakness, estimated to be about 4¼ percentage points in late 2009. In CBO’s view, the remaining ¾ percentage point of the increase from the unemployment rate before the recession stems primarily from two structural factors that have boosted the natural rate of unemployment to about 5¾ percent currently:<sup>11</sup>

- The stigma and erosion of skills that can stem from long-term unemployment (wherein a person has been jobless for more than 26 consecutive weeks) account for about ½ percentage point of the increase; and
- A decrease in the efficiency with which employers are filling vacancies (probably at least in part as a result of mismatches in skills and locations) accounts for about ¼ percentage point of the increase.<sup>12</sup>

*Employment Shortfall.* In combination, the elevated unemployment rate and the shortfall in labor force participation have resulted in substantially lower employment in 2014 than would otherwise be the case: In the second quarter of this year, if the unemployment rate had returned to its prerecession level and if the labor force participation rate equaled its potential rate, about 3¾ million more people would have been employed, according to CBO’s estimates.<sup>13</sup> The elevated unemployment rate and the depressed labor force participation rate account for that shortfall in roughly equal proportions. By comparison, the shortfall in employment represented about 5¼ million people in the fourth quarter of last year by CBO’s estimates, reflecting a higher unemployment

rate and a slightly more negative effect of the cyclical economic weakness on labor force participation.<sup>14</sup> At its peak in 2009, that shortfall was 8½ million people, CBO estimates.

Those estimates of the shortfall in employment do not reflect the number of people who have left the labor force permanently in response to the recession and slow recovery. However, the estimates do include unemployed workers who would have difficulty finding jobs even if overall demand for workers was higher. Alternative measures of the shortfall in employment that treated those or other groups of people differently might be appropriate for some purposes.

*Other Indicators of Labor Market Slack.* Another manifestation of slack in the labor market is the number of people who are employed but are not working as many hours as they would prefer. The incidence of part-time employment for economic reasons (resulting from slack work or business conditions or a worker’s inability to find full-time employment) remains much higher than it was before the recession (see Figure 2-8). Consequently, the Bureau of Labor Statistics’ U-6 measure of underutilization in the labor market stood at 12.2 percent in the second quarter, down from a peak of 17.1 percent in fourth quarter of 2009 but still well above its value of 8.5 percent in the fourth quarter of 2007 (see Figure 2-9). (The U-6 measure combines the number of unemployed people with numbers for two other groups of people: those who are “marginally attached” to the labor force—that is, who are not currently looking for work but are willing and able to work and who have looked for work in the past 12 months—and those who are employed part-time for economic reasons.) Consistent with the trends in the U-6 measure, average hours worked per worker fell substantially during the recession and remain below their prerecession level.

11. The estimated effect of structural factors in the second quarter is less than CBO’s estimate of that effect for the past few years, which is about 1 percentage point.

12. CBO’s estimates of the natural rate in 2013 and earlier years also incorporate effects of the extension of unemployment insurance benefits (from the usual 26 weeks to as long as 99 weeks). Because that extension expired at the end of 2013, those incentives are not incorporated in CBO’s estimate of the current natural rate.

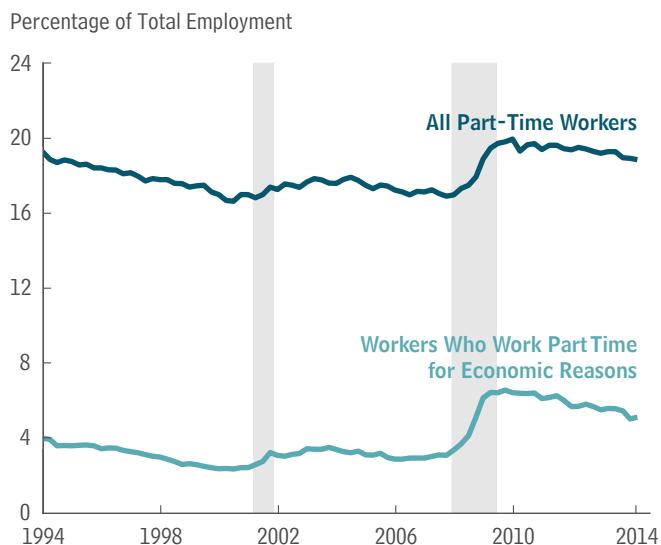
13. This measure encompasses the effect on the unemployment rate of both the temporary cyclical weakness and the structural factors that have boosted the natural rate of unemployment.

Although the rate of short-term unemployment (the number of people unemployed for 26 weeks or less as a percentage of the labor force) in the second quarter of 2014 was close to its average rate between 2001 and 2007, the rate of long-term unemployment was still about a percentage point above its average rate during

14. CBO had previously estimated the shortfall to be about 6 million in the fourth quarter of last year. The revision reflects CBO’s reassessment of the reasons for the decline in the labor force participation rate that was discussed earlier.

**Figure 2-8.**  
**Workers Who Are Employed Part Time**

The incidence of part-time employment for economic reasons remains much higher than it was before the 2007–2009 recession.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: Part-time employees are people who usually work less than 35 hours per week. Employees working part time for economic reasons are people who are doing so because of slack work or business conditions or because they cannot find full-time employment.

Data are quarterly and are plotted through the second quarter of 2014.

that earlier period (see Figure 2-9). The fact that the elevated amount of unemployment is concentrated among the long-term unemployed has accentuated concerns that stigma and an erosion of skills may be hindering their efforts to secure stable work. Although CBO estimates that those factors have raised the natural rate of unemployment, the agency nonetheless expects that many of the long-term unemployed who are not near retirement age will be employed again. CBO's view reflects recent research that the long-term unemployed are in many ways similar to people who have been unemployed for a shorter time.<sup>15</sup> Moreover, the rate at which the long-term unemployed find jobs, while still quite low, appears to have picked up in recent months.<sup>16</sup>

15. See Alan B. Krueger, Judd Cramer, and David Cho, "Are the Long-Term Unemployed on the Margins of the Labor Market?" *Brookings Papers on Economic Activity* (forthcoming).

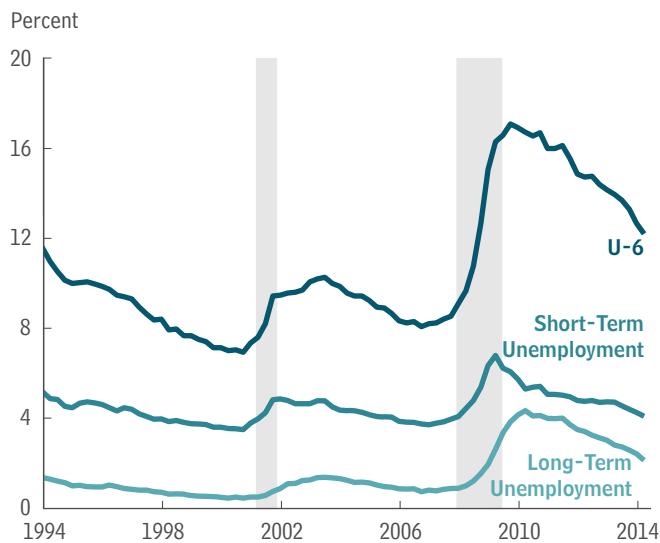
Labor compensation (the combination of wages, salaries, and benefits paid to workers) has grown slowly, another indication that a significant amount of slack remains in the labor market. The growth of the employment cost index (ECI) for total compensation of private industry workers (an indicator of hourly labor costs faced by employers), for example, slowed from an annual rate of about 3 percent before the recession to roughly 2 percent during the past several years, and it has not yet returned to its previous, faster rate of growth. The ECI for wages and salaries of those workers has continued to increase at an annual rate of less than 2 percent since the recession; the growth rate of average hourly earnings of production and nonsupervisory workers in private nonfarm industries has turned up during the past year, but it remains well below its readings before the recession (see Figure 2-10).

*Difficulties in Measuring Labor Market Slack.* Considerable difficulties arise in measuring slack in the labor market, especially under current circumstances. For example, in estimating potential labor force participation, CBO has estimated how many people permanently dropped out of the labor force because of such factors as long-term unemployment. However, CBO may have underestimated or overestimated that number, and therefore potential labor force participation could be higher or lower than the agency thinks. Similarly, CBO's estimate of the increase in the natural rate of unemployment relative to what it was before the recession incorporates the agency's estimate of the decrease in the efficiency with which employers are filling vacancies. That effect has diminished gradually, in CBO's judgment, as the causes of that dampened efficiency have receded and as workers have acquired new skills, shifted to faster growing industries and occupations, or relocated to take advantage of new opportunities. If such adjustments in the labor market have occurred faster or slower than CBO has estimated, the natural rate of unemployment would currently be lower or higher, respectively, than CBO has estimated. A lower natural rate would suggest less upward pressure on wages for any given unemployment rate, and a higher natural rate would suggest more upward pressure.

16. See Tomaz Cajner and David Ratner, "The Recent Decline in Long-Term Unemployment," *FEDS Notes* (Board of Governors of the Federal Reserve System, July 21, 2014), <http://tinyurl.com/ln35uyn>.

**Figure 2-9.****Measures of the Underutilization of Labor**

By some measures, the underutilization of labor remains quite high, but the rate of short-term unemployment is close to its average over the 2001–2007 business cycle.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: The U-6 measure of the underutilization of labor combines the number of people who are unemployed, the number of people who are marginally attached to the labor force (those who are not currently looking for work but are willing and able to work and have looked for a job in the past 12 months), and the number of people who work part time for economic reasons. The measure is expressed as a percentage of the labor force plus the number of marginally attached workers.

The rate of short-term unemployment is the percentage of the labor force that has been out of work for 26 weeks or less. The rate of long-term unemployment is the percentage of the labor force that has been out of work for at least 27 consecutive weeks.

Data are quarterly and are plotted through the second quarter of 2014.

**Labor Market Outlook Through 2017.** The faster growth of output anticipated over the next several years will increase the demand for labor, which will reduce the appreciable degree of slack that CBO estimates to currently exist in the labor market. The strengthening economy is projected to narrow the gap between the actual rate of labor force participation and the potential rate, slowing the decline in labor force participation that would result from demographics and policy changes alone. In addition, the strengthening economy is projected to lower the unemployment rate, both by narrowing the gap between the unemployment rate and its

natural rate and by gradually lowering that natural rate. However, the projected decline in the unemployment rate is smaller than the decline seen in recent years, when the unemployment rate was reduced by large declines in the labor force participation rate. CBO also projects that the stronger economy will lead to moderate employment gains over the next few years and a pickup in the growth of hourly labor compensation stemming from the diminished slack in the labor market.

**Labor Force Participation Rate.** Over the next few years, CBO expects that the rate of labor force participation will decline about  $\frac{1}{2}$  percentage point further, to 62.3 percent at the end of 2017. Increasing demand for labor as the economy improves is expected to boost that rate, but a number of other factors will dampen participation further. The most important of those factors is the ongoing movement of the baby-boom generation into retirement, but federal tax and spending policies will also tend to lower the participation rate. In particular, certain aspects of the Affordable Care Act will tend to reduce labor force participation, with the largest effect stemming from the subsidies that reduce the cost of purchasing health insurance through exchanges. Because the subsidies decline with rising income (and increase with falling income) and make some people financially better off, they reduce the incentive for some people to work as much as they would without the subsidies.<sup>17</sup> Also, the structure of the tax code—in which rising income pushes some people into higher tax brackets—will reduce labor force participation slightly.

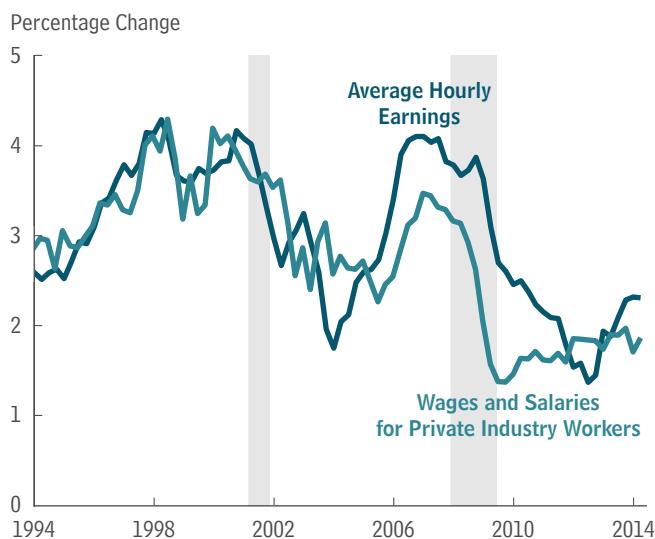
**Unemployment Rate.** CBO projects that the unemployment rate will fall to 5.9 percent in the fourth quarter of 2014 and then edge down to 5.6 percent by the fourth quarter of 2017 (see Table 2-1 on page 32 and Figure 2-11). The projected decline in the unemployment rate over the next few years reflects two forces: First, stronger demand for labor will move the unemployment rate closer to its historical relationship with the natural rate. Second, the natural rate will fall as the efficiency with which employers fill vacancies returns to prerecession levels and the effects of stigma and erosion of skills among the long-term unemployed fade a little. Nonetheless, the decline in the unemployment rate over the next few years is projected to be smaller than it has been in recent years, both because of the anticipated return to the

17. For more information, see Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024* (February 2014), Appendix C, [www.cbo.gov/publication/45010](http://www.cbo.gov/publication/45010).

**Figure 2-10.**

## Measures of Wages and Salaries Paid to Employees

Despite the decline in the unemployment rate in recent years, wages and salaries paid to employees continue to grow slowly.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: Average hourly earnings are earnings of production and nonsupervisory workers on private nonfarm payrolls.

Wages and salaries are measured by the employment cost index for workers in private industry.

Data are quarterly and are plotted through the second quarter of 2014. Percentage changes are measured from the same quarter one year earlier.

labor force of some people who left temporarily as a result of weak employment prospects and wages and because of CBO's expectation (discussed below) that growth in employment will be slower than it has been in the past two years.

*Employment.* CBO expects the increase in nonfarm payrolls (as measured from fourth quarter to fourth quarter) to average about 200,000 jobs per month in 2014 and about 130,000 per month next year; in 2016 and 2017, the projected increase is about 120,000 jobs per month, which is slightly greater than CBO's projection of the increase in the labor force in those years. Growth in employment and total hours worked during the past two years was faster than CBO would have expected given the modest growth in GDP during that period and, as a result, growth in labor productivity was unusually slow. Going forward, CBO expects that firms will be able to

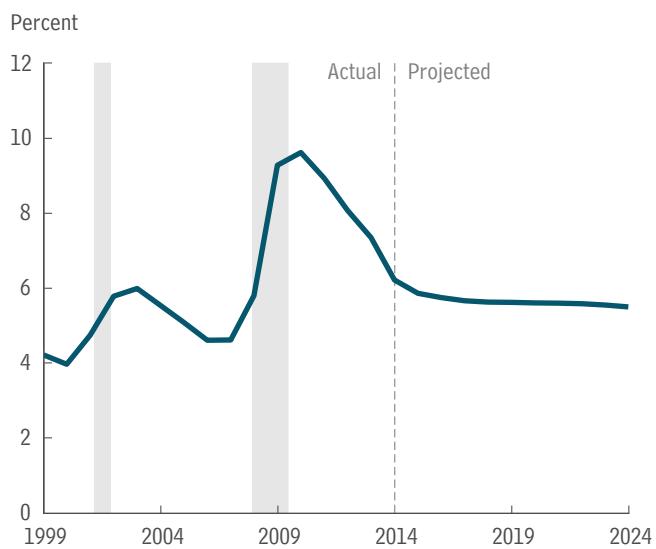
meet the projected increases in demand for goods and services with a pickup in productivity growth and moderate increases in employment.

Despite the diminishing slack in the labor market, the number of people employed as a percentage of the population is projected to remain close to its current level of about 59 percent during the next few years. This percentage is well below levels seen in the two decades before the recent recession, reflecting the long-term trends pushing down participation in the labor force (see Figure 2-12).

*Labor Compensation.* CBO projects a rise in the growth rate of hourly labor compensation over the next three years. CBO expects that the ECI for total compensation of private industry workers will increase at an average annual rate of 3.5 percent in 2015 through 2017, compared with an average of about 2 percent during the past several years. The growth of other measures of hourly labor compensation, such as average hourly earnings of private industry workers, is similarly expected to increase. The growth of hourly compensation has been remarkably slow since the onset of the recession; the anticipated

**Figure 2-11.**

## Unemployment Rate



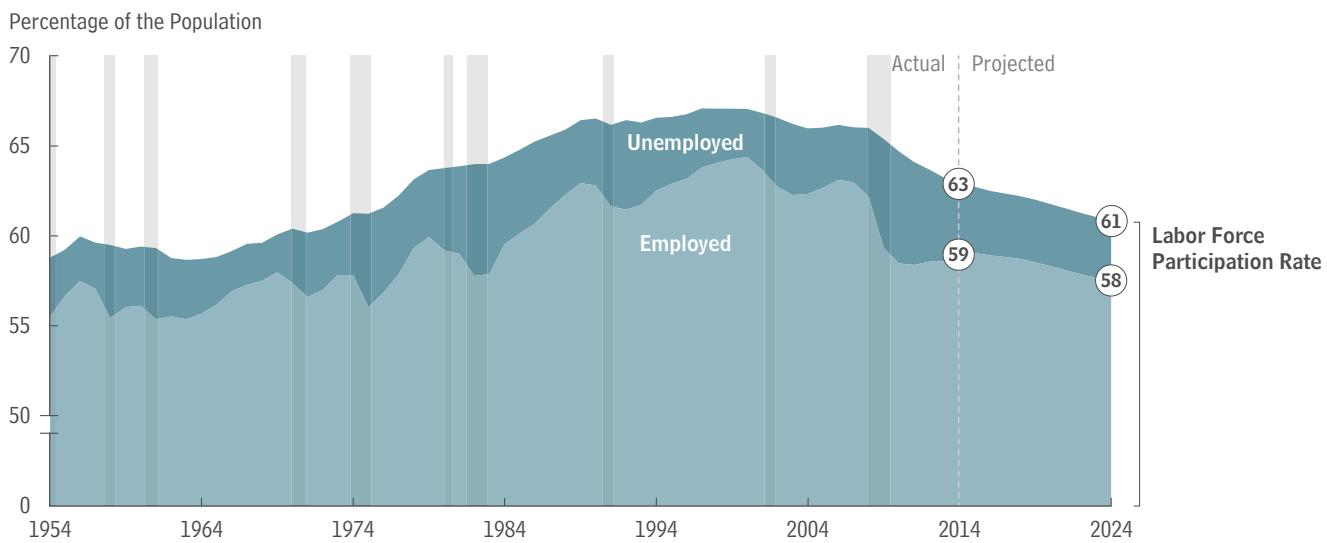
Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force.

Data are annual. Actual data are plotted through 2013.

**Figure 2-12.****The Labor Force, Employment, and Unemployment**

The labor force and employment are projected to grow more slowly than the population after 2015, primarily reflecting the retirement of members of the baby-boom generation.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs. Unemployment as a percentage of the population is not the same as the official unemployment rate, which is expressed as a percentage of the labor force. The population is the civilian noninstitutionalized population age 16 or older.

Data are annual. Actual data are plotted through 2013.

pickup in that growth during the 2015–2017 period is consistent with the expected strengthening of demand for workers.

### Inflation

CBO anticipates that prices will rise at a modest pace over the next few years, consistent with the remaining slack in the economy and with widely held expectations for low and stable inflation. In the agency's projections, the price index for personal consumption expenditures excluding food and energy—the core PCE price index—increases by 1.6 percent in 2014, up from the unusually low increase of 1.3 percent in 2013 (see Table 2-1 on page 32 and Figure 2-13). That core price index is projected to increase by 1.9 percent per year over the next three years.

With the rate of increase in prices of food and energy having picked up in the first half of this year, and given current prices in futures markets for agricultural commodities and crude oil, the more volatile overall PCE price index is projected to increase by a larger amount

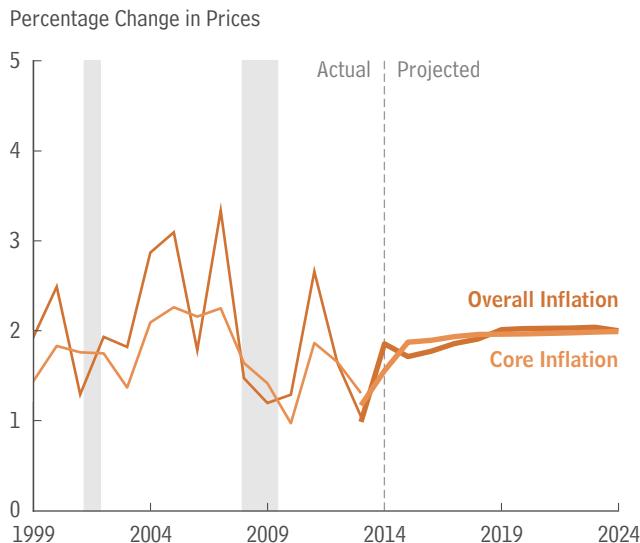
this year—to 1.9 percent, up from 1.0 percent in 2013. Next year, according to CBO's projections, the rate of inflation as measured by the overall PCE price index will edge down to 1.7 percent, with a slowing in the rate of increase in food and energy prices more than offsetting the step-up in core inflation. That overall price index is projected to increase by a little less than 2.0 percent per year in 2016 and 2017.

For later years, CBO projects that both measures of PCE inflation will reach 2.0 percent, which is the Federal Reserve's stated longer-term goal. Inflation might turn out to be higher or lower than that goal, but CBO views those risks as roughly evenly balanced.

The consumer price index for all urban consumers (CPI-U) and its core version are expected to increase a little more rapidly than their PCE counterparts, reflecting both the different methods used to calculate those indexes and a larger role for housing rents—which normally increase more rapidly than other prices—in the

**Figure 2-13.****Inflation**

CBO anticipates that prices will rise at a modest pace over the next several years, reflecting the remaining slack in the economy and widely held expectations for low and stable inflation.



Sources: Congressional Budget Office; Bureau of Economic Analysis.

Notes: The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Data are annual. Values from 1999 through 2013 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014. Values from 2013 through 2024 (the thick lines) reflect the data available and projections made before July 30. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

consumer price indexes. CBO anticipates that the rate of inflation as measured by the CPI will be a little above 2 percent per year, on average, between 2014 and 2017. CBO anticipates that the difference between inflation as measured by the CPI and the PCE price indexes will average about 0.4 percentage points per year from 2014 to 2017, consistent with the average difference over the past several decades.

**The Economic Outlook for****2018 to 2024**

CBO's projections for 2018 and later years are not based on forecasts of cyclical developments in the economy but on projections of underlying factors—such as the growth of the labor force and of hours worked, the amount of investment, and the increase in productivity—that exclude cyclical movements. Those projections take into account historical patterns, federal tax and spending policies under current law, the agency's estimates of the effects of the 2007–2009 recession and slow economic recovery, and projected changes in demographics and other long-term trends.

CBO projects that real GDP will be about  $\frac{1}{2}$  percent below potential GDP, on average, during the 2018–2024 period (see Figure 2-14). That gap is based on CBO's estimate that output has been roughly that much lower than potential output on average from 1960 to 2007 and, in fact, lower than potential output, on average, during each of the five complete business cycles that have occurred since 1973.<sup>18</sup> Over those cycles, the shortfalls in output relative to CBO's estimate of potential output during and after economic downturns have been larger and have lasted longer than the excesses of output over potential output during economic booms.

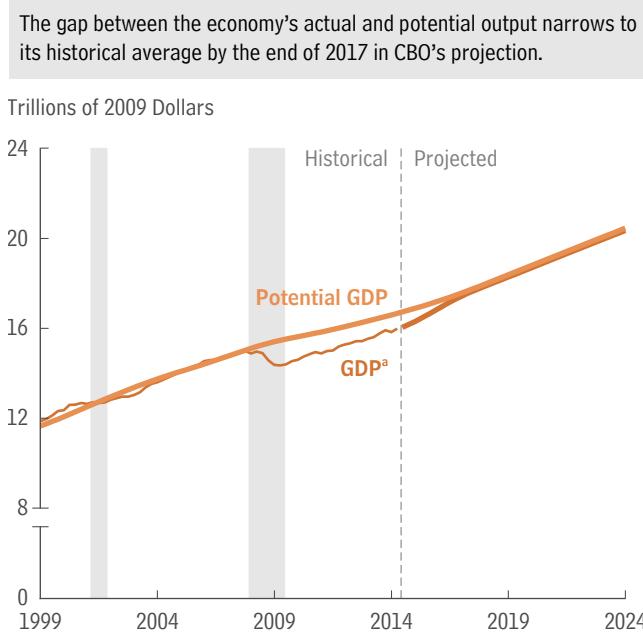
In CBO's projections for the 2018–2024 period:

- The growth of both real GDP and real potential GDP averages 2.2 percent a year.
- The unemployment rate edges down from 5.6 percent at the end of 2018 to 5.5 percent in 2024; consistent with the projection of output being slightly short of its potential level, the unemployment rate in CBO's projections is slightly above the estimated natural rate (5.2 percent in 2024).

18. The term "business cycle" describes fluctuations in overall economic activity accompanied by fluctuations in the unemployment rate, interest rates, income, and other variables. Over a business cycle, real activity rises to a peak and then falls until it reaches a trough, whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, magnitude, and duration.

## Figure 2-14.

### GDP and Potential GDP



Sources: Congressional Budget Office; Bureau of Economic Analysis.

Notes: Potential gross domestic product (GDP) is CBO's estimate of the maximum sustainable output of the economy.

Data are quarterly. Historical data for GDP, which reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014, are plotted through the second quarter of 2014. Historical values for potential GDP and all projected values reflect the data available before July 30; projected values are plotted through the fourth quarter of 2024.

- a. From 2018 to 2024, the projection for actual GDP falls short of that for potential GDP by half a percent of potential GDP
- Consistent with the Federal Reserve's goal, both inflation and core inflation as measured by the PCE price index are projected to be 2.0 percent; inflation as measured by the CPI-U is projected to be a little higher.
- The interest rates on 3-month Treasury bills and 10-year Treasury notes are projected to be 3.4 percent and 4.7 percent, respectively.

### Potential Output

The 2.2 percent average annual growth in real potential output that CBO projects for the 2018–2024 period is similar to the rate estimated for the past decade but sub-

stantially lower than the average rate during the 1980s and 1990s (see Table 2-2).

The projected growth rate for potential output is slower than that during those earlier years largely because growth in the potential labor force (the size of the labor force adjusted for variations caused by the business cycle) is expected to slow from its average annual rate of about 1.5 percent during the 1980s and 1990s to 0.6 percent over the next decade. Growth of the labor force will be attenuated by the ongoing retirement of members of the baby-boom generation; by a relatively stable labor force participation rate among working-age women after sharp increases from the 1960s through the mid-1990s; and by federal tax and spending policies set in current law, which, over time, will reduce some people's incentives to work. In addition, that slower projected growth of the potential labor force reduces the projected growth of capital services because smaller additions to the capital stock are sufficient to equip a labor force that is growing at a more restrained pace; as a result, projected investment by businesses is less than it would be if the labor force was expanding rapidly.

The slower projected growth of potential output in the next decade relative to that in the 1980s and 1990s also reflects CBO's expectation that the output of most sectors of the economy—including owner-occupied housing, nonprofit institutions serving households, and state and local governments—will grow more slowly than their historical averages.<sup>19</sup> In the case of owner-occupied housing, household formation is projected to be slower than in the past; in the case of nonprofits and state and local governments, the relatively weak employment growth over the past decade is expected to persist over the projection period. In addition, under the assumption that current laws governing federal taxes and spending generally remain unchanged, CBO projects that output of the federal government sector, adjusted for inflation, will

19. The output of the state and local government sector includes only compensation of state and local employees and depreciation of equipment, structures, and intellectual property products owned by state and local governments. Other purchases by state and local governments—such as new capital investments, goods that are not capital investments, and contracted services—are part of the output of other sectors of the economy, primarily the nonfarm business sector.

**Table 2-2.****Key Inputs in CBO's Projections of Potential GDP**

By Calendar Year, in Percent

	Average Annual Growth						Projected Average Annual Growth		
	1950- 1973	1974- 1981	1982- 1990	1991- 2001	2002- 2013	Total, 1950- 2013	2014- 2017	2018- 2024	Total, 2014- 2024
<b>Overall Economy</b>									
Potential GDP	4.0	3.3	3.2	3.2	2.2	3.3	1.9	2.2	2.1
Potential Labor Force	1.6	2.5	1.6	1.3	0.7	1.5	0.5	0.6	0.6
Potential Labor Force Productivity <sup>a</sup>	2.4	0.8	1.5	1.9	1.5	1.8	1.4	1.6	1.5
<b>Nonfarm Business Sector</b>									
Potential GDP	4.1	3.7	3.3	3.6	2.5	3.5	2.3	2.6	2.5
Potential Hours Worked	1.4	2.4	1.6	1.2	0.4	1.3	0.4	0.7	0.6
Capital Services	3.9	4.1	4.0	4.3	2.5	3.7	2.6	3.2	3.0
Potential TFP	1.9	0.8	1.0	1.4	1.4	1.5	1.2	1.2	1.2
Potential TFP excluding adjustments	1.9	0.8	1.0	1.4	1.2	1.4	1.2	1.2	1.2
Adjustments to TFP (Percentage points) <sup>b</sup>	0	0	0	0.1	0.2	0.1	*	*	*
Contributions to the Growth of Potential GDP (Percentage points)									
Potential hours worked	1.0	1.7	1.1	0.9	0.3	0.9	0.3	0.5	0.4
Capital input	1.2	1.2	1.2	1.3	0.8	1.1	0.8	1.0	0.9
Potential TFP	1.9	0.8	1.0	1.4	1.4	1.5	1.2	1.2	1.2
Total Contributions	4.0	3.7	3.3	3.6	2.5	3.5	2.3	2.6	2.5
Potential Labor Productivity <sup>c</sup>	2.7	1.3	1.7	2.4	2.1	2.2	1.9	1.9	1.9

Source: Congressional Budget Office.

Notes: Potential GDP is CBO's estimate of the maximum sustainable output of the economy.

GDP = gross domestic product; TFP = total factor productivity; \* = between -0.05 percent and zero.

- a. The ratio of potential GDP to the potential labor force.
- b. The adjustments reflect CBO's estimate of the effects of the 2007–2009 recession on potential GDP (over and above its impact on capital services and potential hours worked), changes in the average level of education and experience of the labor force, and the unusually rapid growth of TFP between 2001 and 2003.
- c. The ratio of potential GDP to potential hours worked in the nonfarm business sector.

decline over the projection period (whereas it was rising, on balance, during the 1980s and 1990s).<sup>20</sup>

For the nonfarm business sector of the economy, CBO projects potential output to grow by 2.6 percent per year, on average, over the 2018–2024 period, roughly the same

pace at which it expanded during the 2002–2013 period but well below its rate of expansion in the 1980s and 1990s. Potential hours worked in this sector are projected to grow at an average annual rate of 0.7 percent between 2018 and 2024, faster than they did between 2002 and 2013 but slower than they did in the 1980s and 1990s. Capital services are projected to grow somewhat faster than in the previous decade, reflecting the projected increases in investment. Potential total factor productivity (the average real output per unit of combined labor and capital services, excluding the effects of the business

20. In the national income and product accounts, the output of the federal government sector includes only compensation of federal employees and depreciation of equipment, structures, and intellectual property products owned by the federal government.

cycle) is expected to grow at an average rate of 1.2 percent—slightly faster than in the 1980s and 1990s but slightly slower than in the 2000s. Growth in the 2000s was spurred by a surge in productivity during a few years early in that period, the source of which is unclear and which CBO believes is unlikely to recur during the next decade.

Incorporated in those projections is CBO's expectation that the recession and slow recovery will have lingering negative effects on the economy:

- Persistently weak conditions in the labor market have led some workers to leave the labor force permanently, and the persistent effects of high long-term unemployment are boosting the natural rate of unemployment relative to its prerecession level. CBO estimates that in 2024 the lasting effects of the recession and slow recovery will boost the unemployment rate by about  $\frac{1}{4}$  percentage point and will depress the labor force participation rate by about  $\frac{1}{2}$  percentage point.
- The low amount of investment during the past several years has held down the growth of capital services. Despite CBO's projection of brisk growth in investment in coming years, the agency does not expect the capital stock in 2024 to be as large as it would have been in the absence of the recession.
- CBO estimates that the protracted weakness in demand for goods and services and the large amount of slack in the labor market have lowered potential total factor productivity by reducing the speed with which resources are being reallocated to their most productive uses, slowing the rate at which workers are gaining new skills, and restraining businesses' spending for research and development.

Combining those effects, CBO expects that the recession and slow recovery will reduce the level of potential output during the 2017–2024 period by an average of about  $1\frac{3}{4}$  percent—0.7 percentage points from fewer potential hours worked, 0.6 percentage points from less capital services, and 0.5 percentage points from lower total factor productivity.<sup>21</sup>

## The Labor Market and Inflation

In CBO's projections, the rate of unemployment edges down from 5.6 percent at the end of 2018 to 5.5 percent

in 2024, and CBO's estimate of the natural rate of unemployment declines from 5.4 percent to 5.2 percent over the same period.

The difference of roughly  $\frac{1}{4}$  percentage point between the unemployment rate and the natural rate during the 2018–2024 period is not based on a forecast of specific cyclical movements in the economy. Instead, it is based on CBO's estimate that the unemployment rate has been roughly that much higher than the natural rate, on average, over the 1960–2007 period and, in fact, higher than the natural rate on average during each of the five complete business cycles that have occurred since 1973.<sup>22</sup> The difference between the projections of the unemployment rate and the natural rate corresponds to the gap between the projections of output and potential output that was discussed above.

The decline in the estimated natural rate over the 2018–2024 period reflects the diminishing effect of structural factors associated with long-term unemployment (namely, the stigma of being unemployed for a long time and the erosion of skills that can occur). Those factors contribute about  $\frac{1}{4}$  percentage point to the projected natural rate in 2024, down from about  $\frac{1}{2}$  percentage point in 2017.

CBO projects that in 2024 the labor force participation rate will be approximately 61 percent, about  $1\frac{1}{2}$  percentage points less than in 2017 and 5 percentage points

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21. Since 2007, CBO has lowered its projection of potential output in 2017—the end of the projection period for the estimates made in 2007—by about 7 percent, much more than the  $1\frac{3}{4}$  percent reduction that the agency attributes to the recession and ensuing economic weakness. (That comparison excludes the effects of changes the Bureau of Economic Analysis made to the definition of GDP during its comprehensive revision of the national income and product accounts in 2013.) The bulk of the difference arises from CBO's reassessment of long-term trends that were already under way before the recession. To a lesser extent, the downward revision is attributable to revisions of historical data, changes in CBO's methods for estimating potential output, and the effect of higher federal debt in "crowding out" additional capital investment in the long term. For further discussion, see Congressional Budget Office, *Revisions to CBO's Projection of Potential Output Since 2007* (February 2014), pp. 8–11, [www.cbo.gov/publication/4150](http://www.cbo.gov/publication/4150).

22. The difference between the unemployment rate and CBO's estimate of the natural rate was about  $\frac{1}{2}$  percentage point, on average, between 1973 and 2007 and about  $\frac{3}{4}$  percentage point, on average, between 1973 and 2013.

below the rate at the end of 2007. Of the total projected decline between 2007 and 2024, about 3½ percentage points can be attributed to long-term trends (most notably the aging of the population), slightly less than ½ percentage point reflects the permanent withdrawal of workers in response to the recession and slow recovery, and about 1 percentage point stems from the effects of the Affordable Care Act and of the individual income tax on incentives to participate in the labor force.

In CBO's projections, inflation as measured by the PCE price index and the core PCE price index averages 2.0 percent annually over the 2018–2024 period; that rate is consistent with the Federal Reserve's longer-term objective. As measured by the CPI-U and core CPI-U, projected inflation is higher during that period, at 2.4 percent and 2.3 percent, respectively.

### Interest Rates

CBO projects that nominal interest rates on 3-month Treasury bills and 10-year Treasury notes will rise to 3.5 percent and 4.7 percent, respectively, by the end of 2018 and remain at those levels through 2024. Likewise, CBO expects the federal funds rate to reach 3.8 percent by the end of 2018 and remain at that level through 2024.

Adjusting for inflation as measured by the CPI-U, the projected real interest rate on 10-year Treasury notes equals 2.3 percent between 2018 and 2024. That rate is well above its current level but roughly ¾ percentage point below its average between 1990 and 2007, a period that CBO uses for comparison because it featured fairly stable expectations for inflation and no significant financial crises or severe economic downturns. In CBO's assessment, the factors that will tend to reduce real interest rates on Treasury securities over the projection period relative to their 1990–2007 averages will have a larger total effect than the factors that will tend to increase those rates.<sup>23</sup>

Specifically, CBO expects that four factors will reduce real interest rates on government securities relative to their earlier average:

23. For a more comprehensive discussion of key factors affecting interest rates in the future, see Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), pp. 108–109, [www.cbo.gov/publication/45471](http://www.cbo.gov/publication/45471).

- Slower growth in the labor force will tend to raise the amount of equipment and other capital per worker, reducing both the return on capital and the return on competing investments, such as Treasury securities.
- A higher share of total income going to high-income households will tend to increase the overall saving rate, raising the amount of savings available for investment and thus the amount of capital per worker.
- Slightly slower productivity growth will tend to reduce the return on capital and interest rates.
- The risk premium demanded by investors to hold assets that are riskier than Treasury securities will probably remain larger over the next decade than it was, on average, over the 1990–2007 period, lowering interest rates on those securities.

However, CBO expects that the following factors will tend to increase real interest rates on government securities relative to their earlier average:

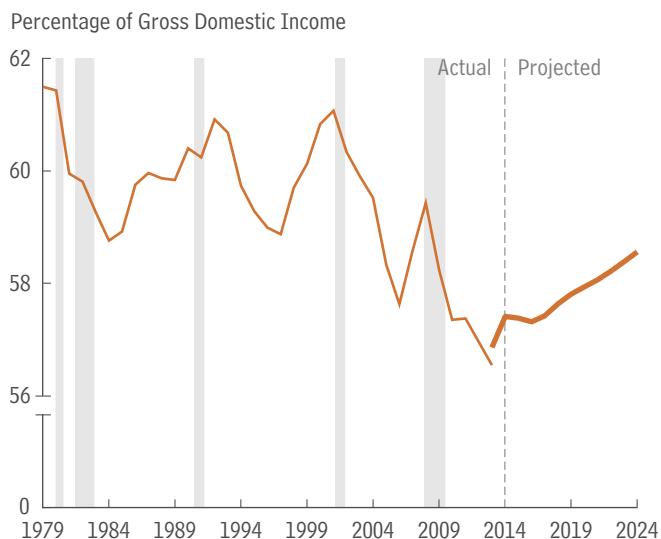
- Under current law, federal debt will be much larger as a percentage of GDP than it was before 2007, so federal borrowing will tend to crowd out additional private investment in the long run and reduce the amount of capital per worker.
- Over the coming decade, smaller net inflows of capital from other countries as a percentage of GDP will restrain domestic investment and the amount of capital per worker.
- A higher share of income going to capital relative to the average over the 1990–2007 period will boost the return on capital and thus interest rates.
- A smaller number of workers in their prime saving years relative to the number of older people drawing down their savings will decrease the total amount of savings available for investment and the amount of capital per worker.

### Projections of Income

Economic activity and federal tax revenues depend not only on the amount of total income in the economy but also on how that income is divided among its constituent parts: wages and salaries, domestic economic profits, proprietors' income, interest and dividend income, and

## Figure 2-15.

### Labor Income



Sources: Congressional Budget Office; Bureau of Economic Analysis.

Notes: Labor income is defined as the sum of employees' compensation and CBO's estimate of the share of proprietors' income that is attributable to labor. Gross domestic income is all income earned in the production of gross domestic product. For further discussion of the labor share of income, see Congressional Budget Office, *How CBO Projects Income* (July 2013), [www.cbo.gov/publication/44433](http://www.cbo.gov/publication/44433).

Data are annual. Values from 1979 through 2013 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis made on July 30, 2014. Values from 2013 through 2024 (the thick line) reflect the data available and projections made before July 30.

other categories. CBO projects various categories of income by estimating their shares of gross domestic income (GDI). In principle, GDI equals GDP because each dollar of production yields a dollar of income; in practice, they differ because of difficulties in measuring both quantities.

CBO expects labor income as a share of GDI to increase over the projection period after declining since the recession (see Figure 2-15).<sup>24</sup> Much of that decline reflected slower growth in wages and salaries (the largest component of labor income) than in the other components of GDI. In CBO's projections, labor income grows faster than other components of GDI over the next decade, increasing its share from 56½ percent of GDI in 2013 to

58½ percent in 2024—about 1 percentage point below its average since 1980.

The projected increase in labor's share of income stems primarily from faster growth in real hourly labor compensation. That growth is expected to pick up during the next few years in response to strengthening demand for labor and then to remain sufficiently brisk through the rest of the decade to keep wages and salaries expanding slightly faster than other types of income. However, CBO does not expect labor's share of income to reach its post-1980 average because factors that have depressed it in recent years are likely to continue during the coming decade. Those factors include globalization, which has tended to move the production of labor-intensive goods and services to places where labor costs are lower, and technological change, which has made it easier for some employers to substitute capital for labor.

In CBO's projections, domestic economic profits as a share of GDI fall to 7¼ percent in 2024 from 10 percent in 2013. That share decreases because of the pickup in growth of labor compensation just discussed; a projected increase in corporate interest payments stemming from rising interest rates; and an anticipated increase in depreciation as a share of GDI because types of capital that depreciate more quickly, such as research and development and software, are projected to make up a larger share of investment than in the past.

## Some Uncertainties in the Economic Outlook

Significant uncertainty surrounds CBO's current economic forecast, which the agency constructed to be, like its previous forecasts, in the middle of the distribution of possible outcomes for the economy given the federal fiscal policies that are embodied in current law. Even if no significant changes are made to those fiscal policies, economic outcomes will undoubtedly differ from CBO's projections. In particular, relative to recoveries following previous recessions, the current business cycle has been

24. CBO defines labor income as the sum of employees' compensation and a percentage of proprietors' income (that percentage being employees' compensation as a share of the difference between GDI and proprietors' income). For further discussion of the labor share of income, see Congressional Budget Office, *How CBO Projects Income* (July 2013), [www.cbo.gov/publication/44433](http://www.cbo.gov/publication/44433).

unusual in a variety of ways and persistently difficult to predict, which suggests considerable uncertainty about future developments.<sup>25</sup> As one example, it has been difficult to determine the underlying strength of the economy this year because, contrary to CBO's expectations (and those of most other forecasters), real GDP declined sharply in the first quarter before rebounding noticeably in the second quarter.

Many developments—such as unforeseen changes in businesses' confidence, households' expectations of future economic conditions, the economies of other countries, and the availability of credit to households—could cause economic growth and other variables to differ substantially, in one direction or the other, from what CBO has projected. For example, a greater-than-expected improvement in businesses' confidence could lead to faster-than-expected increases in investment and hiring. In contrast, weak employment growth or unexpected weakness in households' expectations of future economic conditions could dampen household formation relative to CBO's projections and thus lead to weaker-than-projected residential investment.

Moreover, a number of factors that will determine the economy's output later in the coming decade are particularly uncertain at this point. For example, total hours worked, the amount of capital services, and the productivity of labor and capital are all difficult to predict. The economy could grow considerably faster than CBO forecasts if those factors surpass the agency's expectations: Possibilities include faster growth of the labor force (for example, if older workers choose to stay in the labor force longer than expected) and more rapid gains in productivity. Outcomes that fall below those in CBO's forecast are also quite possible if the factors underlying growth turn out to be worse than the agency anticipates: For instance, if improving labor market conditions do not draw significant numbers of workers back into the labor force, then future hours worked could be substantially less than CBO expects, and slower growth of the labor force would, in turn, imply less need for business investment.

25. For a discussion of some unusual features of the current business cycle, see Congressional Budget Office, *What Accounts for the Slow Growth of the Economy After the Recession?* (November 2012), [www.cbo.gov/publication/43707](http://www.cbo.gov/publication/43707).

## Comparison With CBO's February 2014 Projections

CBO's current economic projections differ somewhat from the projections it issued in February 2014 (see Table 2-3). Growth of real GDP in 2014 is now expected to be much lower than CBO anticipated in February; with projected growth thereafter almost unchanged, CBO now projects modestly lower levels of real GDP over the next decade. Also, relative to its February forecast, CBO now expects that interest rates will be lower for most of the projection period and that the rate of unemployment will be lower in the next few years. CBO's projection of inflation in 2014 is higher now than it was in February but in other years is roughly unchanged.

### Output

CBO has lowered its projection of real growth of GDP in 2014 from 3.1 percent to 1.5 percent, reflecting the surprising economic weakness in the first half of the year.

CBO has also made small downward revisions to its estimates of the economy's productive capacity in 2014 and over the 10-year projection period. Specifically, CBO has lowered its estimate of potential output in 2024 by roughly 1 percent, primarily because of downward revisions to projected real business investment (and thus capital accumulation) and to productivity. CBO's anticipation of weaker business investment stems from three primary sources: a lower projection of real GDP, particularly in the near term; a smaller projected potential labor force, largely because of an assessment that more of the recent weakness in the participation rate reflects factors that are expected to be relatively persistent over the next few years; and a higher projected price of capital, largely because CBO has moderated its projected decline in computer prices. The downward revision to projected productivity growth reflects an expectation that some of the surprisingly modest gains in productivity in recent quarters will continue.

The downward revisions to projected potential GDP over the coming decade have led CBO to make downward revisions to projected actual GDP. CBO currently anticipates that growth from 2015 through 2024 will be roughly the same as it previously projected; with estimated growth in 2014 well below the previous forecast, real GDP over the entire period is now projected to be modestly lower than it was in February.

**Table 2-3.**
**Comparison of CBO's Current and Previous Economic Projections for  
Calendar Years 2014 to 2024**

Percent	Forecast				Projected Annual Average, 2018–2024
	2014	2015	2016	2017	
Percentage Change From Fourth Quarter to Fourth Quarter					
Real (Inflation-adjusted) GDP					
August 2014	1.5	3.4	3.4	2.7	2.2
February 2014	3.1	3.4	3.4	2.7	2.2
Nominal GDP					
August 2014	3.2	5.2	5.3	4.7	4.2
February 2014	4.7	5.2	5.3	4.7	4.2
PCE Price Index					
August 2014	1.9	1.7	1.8	1.9	2.0
February 2014	1.5	1.7	1.8	1.9	2.0
Consumer Price Index <sup>a</sup>					
August 2014	2.5	1.9	2.0	2.2	2.4
February 2014	1.9	2.1	2.1	2.3	2.4
GDP Price Index					
August 2014	1.8	1.7	1.8	1.9	2.0
February 2014	1.6	1.7	1.9	1.9	2.0
Employment Cost Index <sup>b</sup>					
August 2014	1.9	3.0	3.5	3.7	3.4
February 2014	2.6	3.3	3.6	3.9	3.7
Real Potential GDP					
August 2014	1.7	1.9	2.1	2.2	2.2
February 2014	1.8	2.0	2.2	2.4	2.2
Calendar Year Average					
Unemployment Rate (Percent)					
August 2014	6.2	5.9	5.7	5.7	5.6
February 2014	6.8	6.5	6.1	5.9	5.6
Interest Rates (Percent)					
Three-month Treasury bills					
August 2014	0.1	0.3	1.1	2.1	3.4
February 2014	0.2	0.4	1.8	3.3	3.7
Ten-year Treasury notes					
August 2014	2.8	3.3	3.8	4.2	4.7
February 2014	3.1	3.7	4.3	4.8	5.0
Tax Bases (Percentage of GDP)					
Wages and salaries					
August 2014	42.8	42.7	42.5	42.6	43.0
February 2014	42.6	42.5	42.5	42.6	43.1
Domestic economic profits					
August 2014	9.2	9.3	9.4	9.3	7.9
February 2014	9.5	9.5	9.5	9.0	7.6

Source: Congressional Budget Office.

Note: GDP = gross domestic product; PCE = personal consumption expenditures.

a. The consumer price index for all urban consumers.

b. The employment cost index for wages and salaries of workers in private industries.

## The Labor Market

Compared with February's estimates, CBO's current projections of the unemployment rate and the labor force participation rate are lower for the next half-dozen years but then are roughly equal to the previous projection. CBO's new forecast reflects the fact that the unemployment rate fell more than expected in late 2013 and early 2014 because of stronger-than-expected gains in employment. In addition, the lack of a rebound in the labor force participation rate as the unemployment rate fell markedly has led CBO to conclude that a larger share of the decline in participation between 2007 and 2013 should be attributed to permanent departures from the labor force and a smaller share should be attributed to temporary departures. As a result, CBO has slightly revised downward its projection of the participation rate over the next several years.

## Inflation

CBO's current forecast includes a higher rate of overall inflation in 2014, largely because of an increase in the prices of food and energy that has already occurred. The rates of increase in prices of food and energy are projected to slow in the second half of 2014. The jumps in those prices in the first half of the year did not alter CBO's view of the underlying rate of inflation, so the current projections for core measures of inflation in 2014 are very similar to what CBO projected in February. Beyond 2014, rates of core and overall inflation are almost identical to those in CBO's previous forecast.

## Interest Rates

CBO currently anticipates lower short-term and long-term interest rates over the next decade than it projected in February. For this year and next, the revision reflects the fact that long-term interest rates have been lower than CBO had forecast. For later in the coming decade, the revision reflects CBO's reassessment of the factors influencing real rates. (For discussion of the key factors on which CBO focused in that reassessment, see the section of this chapter titled "The Economic Outlook for 2018 to 2024.")

## Comparison With Other Economic Projections

CBO's projections differ only slightly from the Federal Reserve's forecasts presented at the June 2014 meeting of the Federal Open Market Committee and from the *Blue Chip* consensus forecast published in August 2014.

CBO's projection of the growth of real GDP is lower than the "central tendency" of the range of Federal Reserve forecasts for 2014 and above the central tendency for 2015 and 2016, indicating that CBO expects a more delayed pickup in GDP growth (see Figure 2-16). (The Federal Reserve reports two sets of forecasts: a range that reflects the forecasts of each member of the Board of Governors and the president of each Federal Reserve Bank; and a central tendency that reflects the range excluding the three highest and three lowest projections.) CBO's estimate of the unemployment rate is slightly below the central tendency of the range of Federal Reserve forecasts in 2014, slightly above the central tendency in 2015 and 2016, and at the top of the central tendency for the "longer run."<sup>26</sup> CBO's projection of growth in the PCE price index is somewhat higher than the central tendency of Federal Reserve forecasts in 2014 but within the central tendency in 2015 and 2016.

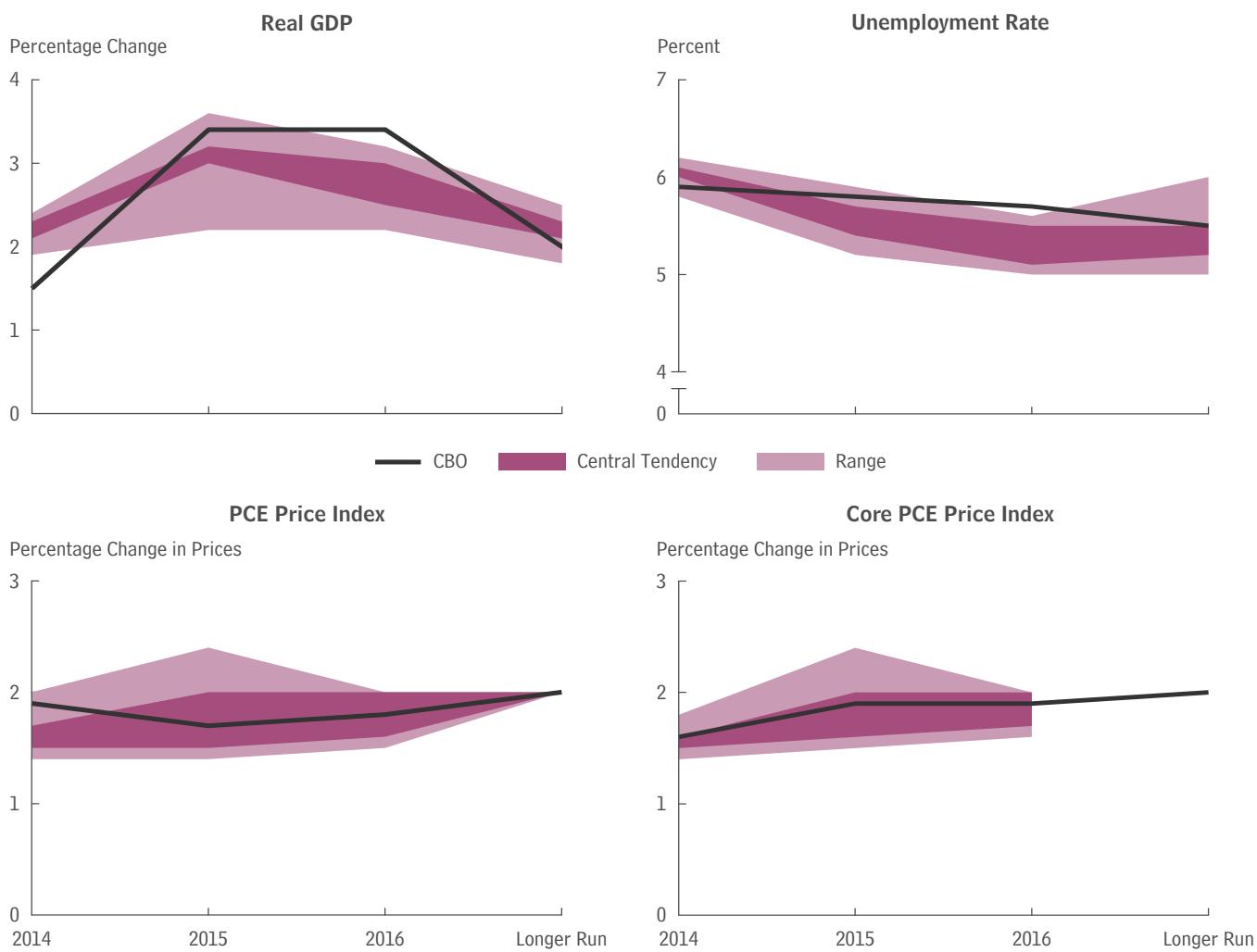
CBO's projection of the growth of real GDP is lower than that of the *Blue Chip* consensus forecast for 2014 and higher for 2015 (see Figure 2-17). CBO's projections of the growth in the CPI-U and the GDP price index are slightly higher than the corresponding projections of the *Blue Chip* consensus for 2014 and slightly lower than they are for 2015. The projection of the unemployment rate is about the same as that of the *Blue Chip* consensus in 2014 and above it in 2015. CBO's projections for the interest rates on 3-month Treasury bills and 10-year Treasury notes are quite close to the *Blue Chip* consensus forecasts for 2014 but a bit lower for 2015.

The differences between CBO's projections and those of the outside forecasters probably stem from a variety of factors, including varying assumptions about the government's future tax and spending policies (other forecasters may be assuming that changes will be made to current law), the economic news available when the forecasts were completed, and differences in the economic and statistical models used. Those factors can lead to differences in a variety of projections, including productivity growth, potential labor force participation, the natural rate of unemployment, and household formation.

26. The Federal Reserve's "longer-run" projections "represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy"; see Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents" (press release, June 18, 2014, <http://tinyurl.com/lunxf9g>).

**Figure 2-16.****Comparison of Economic Projections by CBO and the Federal Reserve**

CBO's projections differ only slightly from the Federal Reserve's recent forecasts.



Sources: Congressional Budget Office; Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, June 2014" (June 18, 2014).

Notes: The range of estimates from the Federal Reserve reflects the forecasts of each member of the Board of Governors and the president of each Federal Reserve Bank. The central tendency is that range without the three highest and three lowest projections.

For CBO, longer-run projections are values for 2024. For the Federal Reserve, longer-run projections are described as the value at which each variable would settle under appropriate monetary policy and in the absence of further shocks to the economy.

Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation.

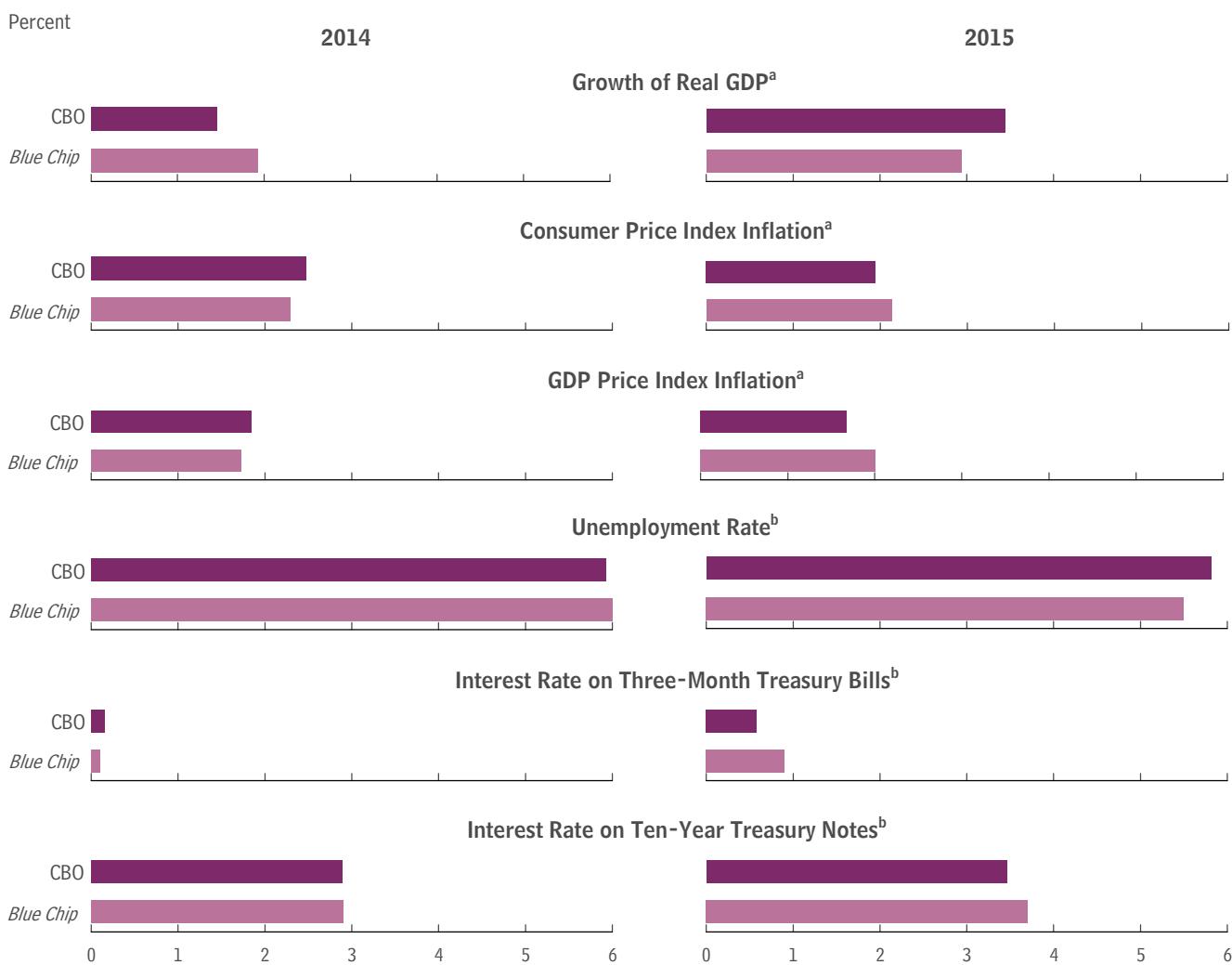
The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force.

PCE = personal consumption expenditures. The core PCE price index excludes prices for food and energy.

Data are annual.

**Figure 2-17.****Comparison of Economic Projections by CBO and the *Blue Chip* Consensus**

CBO's projections differ only slightly from the recent forecasts by the *Blue Chip* consensus.



Sources: Congressional Budget Office; Aspen Publishers, *Blue Chip Economic Indicators* (August 10, 2014).

Notes: The *Blue Chip* consensus is the average of about 50 forecasts by private-sector economists.

Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation.

a. Measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

b. Rate in the fourth quarter.



APPENDIX

# A

## Changes in CBO's Baseline Since April 2014

T

he Congressional Budget Office (CBO) anticipates that in the absence of further legislation affecting spending and revenues, the budget deficit for fiscal year 2014 will total \$506 billion. That amount is \$14 billion more than CBO estimated in April 2014, when the agency produced its previous set of baseline projections (see Table A-1).<sup>1</sup> The cumulative deficit in CBO's baseline for the 2015–2024 period is now \$7.2 trillion, or \$422 billion less than the \$7.6 trillion the agency projected previously.

For 2014, CBO currently estimates that revenues will be \$26 billion (or 0.9 percent) below its projection in April, and outlays will be \$11 billion (or 0.3 percent) below the amount projected then. For the 2015–2024 period, CBO estimates that under current law, revenues would be \$331 billion (or 0.8 percent) lower, and outlays, \$753 billion (or 1.6 percent) lower.

Updates to CBO's economic forecast produced the largest changes in projections of revenues and outlays; however,

the effects of those changes largely offset one another across the two budget categories. Altogether, economic updates have lowered projected deficits over the 2015–2024 period by \$69 billion.

Technical changes in the revenue and outlay projections (those not stemming from the enactment of new legislation or revisions to the economic forecast) were smaller but not offsetting; in the aggregate, such changes have reduced projected deficits relative to the agency's earlier estimates by a total of \$357 billion over 10 years.

Since CBO prepared its April 2014 baseline projections, only a few pieces of legislation have been enacted that will have significant effects on the budget. Those laws provide additional funding for veterans' health care; increase revenues and reduce spending in order to facilitate continued spending from the Highway Trust Fund; and provide emergency appropriations to the Department of Defense. On balance, those legislative changes have marginally decreased the deficit projected for 2014 but have increased the cumulative deficit projected for the 2015–2024 period by \$4 billion.

### Changes to Projections of Revenues

Since releasing its baseline projections in April, CBO has reduced its estimate of revenues by \$26 billion for 2014 and by \$331 billion for the 2015–2024 period. The largest changes after 2014 stem from revisions to the economic forecast.

#### Economic Changes

Revisions to CBO's economic forecast caused the agency to reduce its projections of revenues by \$11 billion for 2014 and by \$503 billion (or 1.2 percent) for the years from 2015 through 2024. CBO now projects lower revenues because it modestly lowered both its projection of nominal gross domestic product (GDP) and its projection of taxable personal income as a percentage of GDP:

1. Those projections were published in Congressional Budget Office, *Updated Budget Projections: 2014 to 2024* (April 2014), [www.cbo.gov/publication/45229](http://www.cbo.gov/publication/45229). CBO constructs its baseline projections in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. To project revenues and mandatory spending, CBO assumes that current laws, with only a few exceptions, will remain unchanged throughout the 10-year projection period. To project discretionary spending, CBO assumes that annual appropriations through 2021 will adhere to the caps and automatic spending reductions established in the Budget Control Act of 2011 (Public Law 112-25) as amended and that appropriations for 2022 through 2024 will grow from the 2021 amounts at the rate of inflation. CBO assumes that certain discretionary appropriations not constrained by the caps, such as those for overseas contingency operations, will grow in future years at the rate of inflation. The resulting baseline projections are not intended to be a prediction of future budgetary outcomes; rather, they serve as a benchmark against which to measure the potential effects of changes in laws governing taxes and spending.

**Table A-1.****Changes in CBO's Baseline Projections of the Deficit Since April 2014**

Billions of Dollars

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total		
												2015-	2015-	
Deficit in CBO's April 2014 Baseline	-492	-469	-536	-576	-627	-722	-804	-878	-998	-1,005	-1,003	-2,930	-7,618	
<b>Changes to Revenue Projections</b>														
Legislative Changes														
Individual income taxes	*	*	*	*	*	*	*	*	*	*	*	1	*	
Corporate income taxes	1	2	4	4	3	2	*	-2	-3	-3	-3	15	4	
Payroll taxes	*	*	*	*	*	*	*	*	*	*	*	1	*	
Other	0	*	*	*	*	*	*	0	0	0	0	*	*	
Subtotal	1	3	4	5	4	2	*	-2	-3	-4	-4	17	4	
Economic Changes														
Individual income taxes	-6	-26	-42	-37	-37	-38	-38	-41	-47	-54	-62	-181	-423	
Corporate income taxes	-5	-11	-9	*	9	12	13	11	10	9	9	1	54	
Payroll taxes	-1	-5	-11	-15	-17	-16	-16	-18	-19	-21	-26	-64	-164	
Other	1	-1	13	25	12	*	-1	-2	-3	-5	-6	48	31	
Subtotal	-11	-43	-49	-28	-33	-43	-43	-49	-58	-71	-85	-196	-503	
Technical Changes														
Individual income taxes	13	6	15	20	22	22	23	23	24	25	26	85	205	
Corporate income taxes	-33	-5	-21	-11	-1	1	*	-1	-2	-2	-3	-37	-46	
Payroll taxes	-7	-1	-2	-1	-5	-2	7	4	2	*	-1	-10	2	
Other	12	16	*	-1	-2	1	-3	-2	-3	1	*	14	7	
Subtotal	-15	16	-8	7	14	22	26	24	22	23	22	51	168	
<b>Total Revenue Changes</b>	<b>-26</b>	<b>-24</b>	<b>-53</b>	<b>-16</b>	<b>-16</b>	<b>-19</b>	<b>-16</b>	<b>-27</b>	<b>-40</b>	<b>-52</b>	<b>-68</b>	<b>-127</b>	<b>-331</b>	
<b>Changes to Outlay Projections</b>														
Legislative Changes														
Mandatory outlays	1	7	3	1	1	1	*	-1	-1	-1	-4	12	5	
Discretionary outlays	*	*	*	*	*	*	*	*	*	*	*	1	3	
Net interest outlays (Debt service)	*	*	*	*	*	*	*	*	*	*	*	*	1	
All Legislative Changes	1	7	4	1	1	1	*	*	*	*	-4	13	8	
Economic Changes														
Mandatory outlays														
Medicare	0	-1	-1	-2	-3	-4	-5	-6	-8	-9	-10	-11	-49	
Medicaid	-1	-2	-2	-2	-3	-3	-4	-5	-6	-6	-7	-12	-40	
SNAP	*	1	2	2	2	2	2	2	2	2	2	11	22	
Unemployment compensation	-3	-4	-3	-2	-2	-2	-2	-1	-1	-1	-1	-13	-19	
Other	1	5	6	5	3	1	-1	-2	-5	-4	-3	20	5	
Subtotal	-3	-1	2	1	-2	-5	-9	-13	-17	-19	-19	-4	-81	
Discretionary outlays	0	-1	-1	-1	-1	*	-1	-1	-2	-3	-4	-4	-14	
Net interest outlays														
Debt service	*	*	1	1	*	*	-1	-2	-2	-2	-2	2	-7	
Other	4	-10	-26	-49	-66	-58	-53	-51	-50	-52	-55	-209	-469	
Subtotal	4	-10	-25	-48	-65	-58	-54	-52	-52	-55	-57	-207	-477	
All Economic Changes	2	-11	-24	-48	-67	-64	-63	-66	-71	-76	-80	-215	-571	

**Continued**

**Table A-1.****Continued****Changes in CBO's Baseline Projections of the Deficit Since April 2014**

Billions of Dollars

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
												2015-	2015-
												2019	2024
<b>Changes to Outlay Projections (Continued)</b>													
Technical Changes													
Mandatory outlays													
Refundable tax credits	*	*	-1	-1	-1	-3	-3	-4	-4	-4	-4	-6	-25
Social Security	*	*	*	*	-1	-1	-1	-2	-2	-3	-3	-2	-12
Medicare	-9	-5	-3	-1	*	*	*	*	*	*	*	-1	-10
Other	5	-9	-1	-3	*	3	*	1	*	*	1	-9	-7
Subtotal	-4	-14	-4	-6	-2	-1	-5	-4	-6	-7	-7	-27	-56
Discretionary outlays	-10	*	3	3	1	*	*	*	1	*	*	7	9
Net interest outlays													
Debt service	*	*	-1	-1	-2	-4	-5	-7	-9	-11	-13	-8	-53
Other	*	-5	-10	-11	-12	-12	-10	-8	-7	-7	-7	-51	-89
Subtotal	-	-5	-11	-13	-14	-16	-15	-15	-16	-18	-20	-58	-142
All Technical Changes	-14	-19	-12	-16	-16	-16	-20	-19	-21	-24	-27	-79	-190
<b>Total Outlay Changes</b>	<b>-11</b>	<b>-23</b>	<b>-32</b>	<b>-62</b>	<b>-82</b>	<b>-80</b>	<b>-83</b>	<b>-85</b>	<b>-93</b>	<b>-100</b>	<b>-111</b>	<b>-281</b>	<b>-753</b>
<b>All Changes</b>													
<b>Total Effect on the Deficit<sup>a</sup></b>	<b>-14</b>	*	<b>-20</b>	<b>46</b>	<b>67</b>	<b>61</b>	<b>67</b>	<b>58</b>	<b>53</b>	<b>48</b>	<b>43</b>	<b>153</b>	<b>422</b>
Deficit in CBO's August 2014 Baseline	-506	-469	-556	-530	-560	-661	-737	-820	-946	-957	-960	-2,777	-7,196
<b>Memorandum:</b>													
Total Legislative Changes <sup>a</sup>	*	-4	1	4	3	1	*	-1	-3	-4	*	4	-4
Total Economic Changes <sup>a</sup>	-13	-31	-25	20	34	22	21	17	13	5	-5	19	69
Total Technical Changes <sup>a</sup>	-2	35	4	23	30	38	46	43	43	47	48	130	357

Source: Congressional Budget Office.

Note: \* = between -\$500 million and \$500 million; SNAP = Supplemental Nutrition Assistance Program.

a. Positive numbers represent a decrease in the deficit; negative numbers indicate an increase in the deficit.

- Compared with its previous estimate, CBO's current estimate of GDP in calendar year 2014 is about 0.8 percent lower, largely reflecting the effect of unexpected weakness in real economic activity that occurred in the first part of the year, which is partially offset by a rate of inflation this year that is slightly higher than expected. A difference of roughly that magnitude remains throughout the 2015–2024 period, because the agency has similarly revised downward its projection of GDP beyond 2014.
- CBO reduced its projection of wages and salaries as a percentage of GDP during most years in the coming decade because it now expects that, relative to the

size of the economy, those earnings will recover from recent recessionary lows less fully than previously projected. CBO also decreased its projection of other types of personal income as a percentage of GDP—in particular, interest income (primarily because of lower projected interest rates) and taxable distributions from tax-deferred retirement accounts (because of slightly lower projected returns on stocks and bonds).

As a result of changes to the economic forecast, CBO has lowered its projection of taxable personal income for all years of the 2014–2024 period, thereby reducing estimated receipts from individual income and payroll taxes.

Partially offsetting such effects, CBO's projection of domestic economic profits increased over the 2017–2024 period, both in total and as a percentage of GDP, mainly because lower interest rates and lower labor costs are expected to reduce businesses' expenses. As a result of those and other, smaller effects of the revised economic forecast, CBO boosted its estimate of corporate income tax receipts from 2018 through 2024.

### Technical Changes

For technical reasons, CBO reduced its estimate of revenues in 2014 by \$15 billion. In contrast, such factors led the agency to increase its revenue estimates by \$168 billion (or 0.4 percent) over the 2015–2024 period. The largest revision for 2014 involves receipts from corporate income taxes; the largest revision for the following 10 years involves receipts from individual income taxes.

On the basis of tax collections through July, CBO expects receipts of corporate income taxes in fiscal year 2014 to be \$37 billion less than the amount the agency projected in April. The bulk of that decline, or \$33 billion, is attributable to technical factors. In part, the reduction reflects a revised assessment of the timing of businesses' payments following the expiration at the end of calendar year 2013 of provisions allowing them to immediately deduct 50 percent of their investments in equipment; CBO now estimates that firms will delay more of the resulting payments from 2014 to 2015. Other factors are also contributing to lower-than-expected receipts from corporate income taxes in 2014, but information sufficient to ascertain what those factors are is not yet available.

Although those other factors will probably continue to affect receipts in the next few years, CBO expects those effects to diminish as the economy recovers. Therefore, CBO has lowered its estimates of receipts from corporate taxes by between \$5 billion and \$21 billion in 2015, 2016, and 2017. The reduction of \$5 billion in 2015 is smaller than those in 2016 and 2017 because of the shift in projected revenues from 2014 to 2015 just discussed.

In CBO's updated baseline, the reduction to receipts from corporate taxes in 2014 for technical reasons is partially offset by higher-than-expected collections of individual income taxes, remittances from the Federal Reserve, and revenues from miscellaneous fees and fines.

For the 2015–2024 period, CBO boosted its estimate of receipts from individual income taxes by \$205 billion for technical reasons. That change derives from new data on tax collections from fiduciaries (reflecting income earned by estates and trusts), new information from tax returns on the amount of taxable distributions from individual retirement accounts, and other factors.

### Legislative Changes

As a result of recently enacted legislation, primarily the Highway and Transportation Funding Act of 2014 (Public Law 113-159), CBO has increased its projections of revenues by about \$750 million in 2014 and by about \$4 billion, on net, over the 2015–2024 period. The act modifies the method of determining the investment returns that sponsors of pension plans assume when calculating their required contributions to certain defined benefit plans. Through 2020, sponsors that maintain single-employer defined benefit plans will be permitted to assume higher returns, resulting in smaller contributions to those plans initially and larger contributions in later years. Such contributions are tax deductible, so a reduction in their amount in the first part of the projection period will increase businesses' taxable income, and an increase in those contributions later will reduce taxable income. As a result, including small effects on individual income and payroll taxes, the provision will increase revenues by about \$750 million in 2014 and by \$17 billion over the 2015–2020 period and then reduce them by \$13 billion over the 2021–2024 period, according to estimates by the staff of the Joint Committee on Taxation. (That provision will also reduce revenues in years after 2024.)

### Changes to Projections of Outlays

CBO has trimmed its estimate of outlays in 2014 by \$11 billion, mainly because of lower estimated spending for discretionary programs and for Medicare, offset in part by lower-than-expected payments to the Treasury from Fannie Mae and Freddie Mac. For the 2015–2024 period, CBO has reduced its projections of outlays by \$753 billion, mostly because of lower projections of net interest costs. About three-quarters of those changes after 2014 stem from revisions to the economic forecast.

### Economic Changes

Updates to CBO's economic projections led the agency to raise its estimates of outlays by \$2 billion for 2014 but to lower them by \$571 billion for the 2015–2024 period.

That 10-year change is dominated by a \$477 billion reduction in estimated net interest costs, primarily the result of lower projected interest rates throughout the period (see Chapter 2).

**Mandatory Spending.** As a result of changes to the economic forecast, CBO's projections of mandatory spending are now \$81 billion lower for the 2015–2024 period than they were previously. The largest of those changes occurred in the projections for Medicare, Medicaid, the Supplemental Nutrition Assistance Program (SNAP), and unemployment compensation.

*Medicare and Medicaid.* CBO reduced its estimate of outlays for the government's two largest health care programs by \$89 billion over the 2015–2024 period because of revisions to the economic forecast. Under current law, payment rates for most services in the fee-for-service sector of Medicare (such as hospital care and services provided by physicians, home health agencies, and skilled nursing facilities) are subject to automatic updates. Those updates are tied to changes in the prices of the labor, goods, and services that health care providers purchase. CBO's current projections for the prices of goods and services related to medical care are slightly lower, on balance, over the 2015–2024 period than they were in the agency's previous forecast, as are its current projections for labor compensation per hour over the same period. Consequently, CBO anticipates that payment rates for Medicare will be slightly lower than what the agency forecast in April, a change that reduces projected outlays by \$49 billion (or less than 1 percent) over the 2015–2024 period. In the Medicaid program, lower prices for medical services and labor than CBO previously projected are also expected to reduce spending slightly—by a total of \$40 billion (or about 1 percent) between 2015 and 2024.

*Supplemental Nutrition Assistance Program.* Projected spending for SNAP over the 2015–2024 period has increased by \$22 billion (or 3 percent) because of changes in the economic forecast. Food prices are rising more rapidly in 2014 than CBO had previously anticipated, and the higher projected food prices in subsequent years raise estimates of SNAP benefits by relatively small amounts in each year of the coming decade.

*Unemployment Compensation.* CBO has lowered its estimate of the unemployment rate during the first half of the projection period. In addition, the labor force is expected to be smaller throughout the period because of

a slight downward revision to the projected size of the population as well as a lower expected rate of participation in the labor force during the first half of the period. Also, CBO estimates that the lower wages projected in the coming decade will result in lower average benefits for unemployment compensation. Consequently, CBO expects that outlays will be lower by \$3 billion in 2014 and by \$19 billion over the 2015–2024 period.

**Discretionary Spending.** Changes to the economic forecast had no effect on CBO's estimate of discretionary spending for 2014, but revised measures of inflation (most notably, slightly reduced estimates for the employment cost index for wages and salaries) have lowered projections of discretionary outlays by \$14 billion for the 2015–2024 period.

**Net Interest.** Changes to CBO's projections of the government's net interest costs resulting from revisions to the economic forecast have two components: the effects of changes in the agency's projections of interest rates and inflation, and the effects of changes in the government's borrowing brought about by a revised forecast's effects on projected revenues and outlays (labeled in Table A-1 on page 58 as debt service).

Updates to CBO's projections of interest rates and inflation have raised estimates of net interest payments in 2014 by \$4 billion, mainly because of higher inflation, which increased the cost of Treasury inflation-protected securities. For the 2015–2024 period, those updates have decreased projected net outlays for interest by \$469 billion, mostly because CBO expects interest rates for all securities to be lower than it previously anticipated. In addition, projected debt-service costs are now lower, by \$7 billion, because of the effects of CBO's updated economic forecast on other components of the budget.

### Technical Changes

As a result of technical updates, CBO has lowered its estimate of outlays in 2014 by \$14 billion. For the 2015–2024 period, such changes have reduced projected outlays by \$190 billion (or 0.4 percent), mostly because of lower projections of net interest costs.

**Mandatory Spending.** Technical revisions related to mandatory programs have reduced the spending projected for the current year by \$4 billion. The two largest changes for 2014 almost exactly offset each other: Slower-than-expected growth in Medicare spending (net of premiums

paid by beneficiaries and other offsetting receipts) will reduce outlays by \$9 billion, but lower-than-expected receipts from Fannie Mae and Freddie Mac will increase them by the same amount. For the 2015–2024 period, technical updates to projections of outlays—in particular, those for certain refundable tax credits, Social Security, and Medicare—have reduced projected mandatory spending by \$56 billion.

**Refundable Tax Credits.** CBO has decreased its estimate of outlays for two refundable tax credits—the earned income and child tax credits—by a net of \$25 billion over the 2015–2024 period. (Projected outlays for the earned income tax credit are down by \$45 billion, and projected outlays for the child tax credit are higher by \$20 billion.) The portions of those credits that exceed taxpayers' income tax liabilities are classified as outlays, and the portions that reduce tax payments are classified as reductions in revenues. The downward revision to the projection of outlays for the tax credits more closely aligns it with projections of the revenue effects that had previously been incorporated in CBO's baseline.

**Social Security.** CBO has decreased its projection of outlays for Social Security over the 2015–2024 period by \$12 billion (or 0.1 percent). That reduction reflects updated information about participation in the Old-Age and Survivors Insurance and Disability Insurance programs. CBO now estimates that the number of people who will receive benefits from each of those programs will be slightly smaller than the number it estimated in April.

**Medicare.** On the basis of actual outlays through July, CBO now expects that the growth of net Medicare spending for 2014 will be slower than what the agency anticipated earlier this year. As a result, CBO has lowered its projection of spending for Medicare by \$9 billion for 2014 and by a total of \$11 billion for the 2015–2024 period. Such revisions primarily stem from lower-than-expected spending for Part A (Hospital Insurance) services and Part D (prescription drugs).

**Other Mandatory Spending.** Technical changes boosted CBO's projections of outlays for other mandatory programs by \$5 billion for 2014 and reduced them by \$7 billion over the 2015–2024 period. The largest such changes for 2014 (estimated on the basis of results so far this year) are a \$9 billion reduction in estimated receipts from Fannie Mae and Freddie Mac (which will be reflected in the budget as an increase in outlays relative to

CBO's previous estimates) and a \$7 billion increase in estimated spending for Medicaid. Smaller reductions in estimated outlays in 2014 for other programs or agencies offset some of those increases. Among the largest components of the net decrease in outlays for the 2015–2024 period are a \$9 billion reduction in projected outlays for education programs and a \$3 billion decrease in the estimated subsidy costs for the credit activities of Fannie Mae and Freddie Mac.

CBO and the staff of the Joint Committee on Taxation's projections of outlays (and revenues) arising from the provisions of the Affordable Care Act (ACA) related to health insurance coverage have not changed substantially for 2014 or over the 2015–2024 period. The limited information about the effects of the ACA that has become available since CBO prepared its spring baseline projections does not provide a basis for making significant changes at this time.

**Discretionary Spending.** Technical adjustments to CBO's projections for a variety of discretionary programs have had the net effect of reducing estimated discretionary outlays by \$10 billion for 2014 but raising them by \$9 billion for the 2015–2024 period. Lower estimates of outlays for certain categories of military spending (mainly operation and maintenance accounts) are the largest factor in the reduction for the current year; in the upcoming decade, changes in projected defense spending account for less than \$1 billion of the total \$9 billion increase.

**Net Interest.** As a result of technical updates, CBO's estimate of net interest outlays is unchanged for 2014 but \$142 billion lower over the 2015–2024 period. Much of that decrease is attributable to enhancements to CBO's method for estimating the interest paid on Treasury inflation-protected securities to better account for future coupon payments. About a third of that change (\$53 billion) occurs because technical changes in other areas of the budget reduce the amount of debt projected under current law.

### Legislative Changes

The recent enactment of three laws has modestly boosted CBO's projections of spending in its baseline, increasing estimated outlays by \$1 billion for 2014 and by \$8 billion for the 2015–2024 period.

The Veterans Access, Choice, and Accountability Act of 2014 (P.L. 113-146) provides \$15 billion to increase

veterans' access to health care by paying for care provided by entities other than the Department of Veterans Affairs (VA), to improve the department's infrastructure, to hire medical staff, and to extend the Health Professionals Educational Assistance Program. The act also authorizes VA to enter into a number of leases for medical facilities and modifies a number of veterans' benefit programs. The expansion of health care, improvement of infrastructure, and authorization of leases will increase outlays by less than \$1 billion in 2014 and by about \$16 billion over the 2015–2024 period. Other provisions of the act are expected to reduce spending on net, by about \$5 billion over the 2017–2024 period—by reducing pension benefits for some veterans in Medicaid-approved nursing homes and by increasing fees charged to some veterans for obtaining home-loan guarantees.

By CBO's estimates, two provisions of the Highway and Transportation Funding Act of 2014 (P.L. 113-159) will decrease projected mandatory outlays: an extension, through 2024, of certain fees collected by U.S. Customs

and Border Protection and a provision that allows sponsors of single-employer defined benefit pension plans to reduce their contributions to those plans over the next several years, which will in turn boost their payments of premiums to the Pension Benefit Guaranty Corporation. Together, those provisions will reduce direct spending by an estimated \$5 billion over the 2015–2024 period.

The Emergency Supplemental Appropriations Resolution of 2014 (P.L. 113-145) provided an additional \$225 million in discretionary budget authority to the Department of Defense to assist the government of Israel with procurement of the Iron Dome defense system. Emergency appropriations are not constrained by the discretionary caps established by the Budget Control Act of 2011 (P.L. 112-25), and for the purposes of baseline projections, they are assumed to continue in future years in amounts equal to the current funding with an adjustment for inflation. As a result, discretionary outlays in CBO's baseline increased by \$3 billion over the 2015–2024 period.



## CBO’s Economic Projections for 2014 to 2024

T

he tables in this appendix expand on the information in Chapter 2 by showing the Congressional Budget Office’s (CBO’s) economic projections for each year from 2014 to 2024 (by calendar year in Table B-1 and by fiscal year in Table B-2). For years after 2017, CBO did not attempt to forecast the frequency or size of fluctuations in

the business cycle. Instead, the values shown in these tables for 2018 to 2024 reflect CBO’s assessment of the effects in the medium term of economic and demographic trends, federal tax and spending policies under current law, the 2007–2009 recession, and the slow economic recovery since then.

**Table B-1.****CBO's Economic Projections, by Calendar Year**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Percentage Change From Year to Year											
Gross Domestic Product											
Real (Inflation-adjusted)	1.5	3.2	3.5	3.0	2.4	2.3	2.3	2.2	2.1	2.1	2.0
Nominal	3.2	5.0	5.3	5.0	4.4	4.3	4.3	4.2	4.2	4.1	4.1
Inflation											
PCE price index	1.5	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index <sup>a</sup>	1.4	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index <sup>b</sup>	2.0	2.1	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.4	2.4
Core consumer price index <sup>a</sup>	1.8	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.7	1.8	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Employment Cost Index <sup>c</sup>	1.8	2.8	3.4	3.7	3.7	3.6	3.5	3.5	3.4	3.4	3.3
Calendar Year Average											
Unemployment Rate (Percent)	6.2	5.9	5.7	5.7	5.6	5.6	5.6	5.6	5.6	5.5	5.5
Payroll Employment <sup>d</sup> (Monthly change, in thousands)	206	134	122	117	98	83	79	78	79	80	82
Interest Rates (Percent)											
Three-month Treasury bills	0.1	0.3	1.1	2.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5
Ten-year Treasury notes	2.8	3.3	3.8	4.2	4.6	4.7	4.7	4.7	4.7	4.7	4.7
Tax Bases (Percentage of GDP)											
Wages and salaries	42.8	42.7	42.5	42.6	42.7	42.8	42.9	42.9	43.0	43.1	43.2
Domestic economic profits	9.2	9.3	9.4	9.3	8.8	8.4	8.1	7.8	7.6	7.4	7.2
Tax Bases (Billions of dollars)											
Wages and salaries	7,423	7,768	8,155	8,568	8,980	9,385	9,799	10,226	10,672	11,131	11,607
Domestic economic profits	1,586	1,699	1,810	1,864	1,853	1,840	1,848	1,860	1,878	1,907	1,944
Nominal GDP (Billions of dollars)	17,336	18,204	19,169	20,119	21,009	21,916	22,855	23,821	24,816	25,839	26,886

Source: Congressional Budget Office.

Note: PCE = personal consumption expenditures; GDP = gross domestic product.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industries.

d. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.

**Table B-2.****CBO's Economic Projections, by Fiscal Year**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Percentage Change From Year to Year											
Gross Domestic Product											
Real (Inflation-adjusted)	1.8	2.7	3.5	3.2	2.5	2.3	2.3	2.2	2.2	2.1	2.0
Nominal	3.4	4.5	5.3	5.1	4.5	4.3	4.3	4.2	4.2	4.1	4.1
Inflation											
PCE price index	1.3	1.8	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Core PCE price index <sup>a</sup>	1.3	1.7	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index <sup>b</sup>	1.7	2.3	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.4	2.4
Core consumer price index <sup>a</sup>	1.7	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.6	1.8	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Employment Cost Index <sup>c</sup>	1.8	2.5	3.2	3.6	3.7	3.6	3.5	3.5	3.4	3.4	3.3
Fiscal Year Average											
Unemployment Rate (Percent)	6.5	5.9	5.8	5.7	5.6	5.6	5.6	5.6	5.6	5.6	5.5
Payroll Employment <sup>d</sup> (Monthly change, in thousands)	211	149	125	119	106	83	80	77	79	80	81
Interest Rates (Percent)											
Three-month Treasury bills	0.1	0.2	0.9	1.8	2.9	3.5	3.5	3.5	3.5	3.5	3.5
Ten-year Treasury notes	2.7	3.1	3.7	4.1	4.5	4.7	4.7	4.7	4.7	4.7	4.7
Tax Bases (Percentage of GDP)											
Wages and salaries	42.7	42.7	42.6	42.6	42.7	42.8	42.9	42.9	43.0	43.1	43.1
Domestic economic profits	9.4	9.3	9.4	9.4	8.9	8.5	8.2	7.9	7.6	7.4	7.3
Tax Bases (Billions of dollars)											
Wages and salaries	7,344	7,679	8,055	8,464	8,877	9,283	9,695	10,118	10,559	11,015	11,487
Domestic economic profits	1,613	1,667	1,786	1,860	1,859	1,840	1,845	1,858	1,872	1,898	1,935
Nominal GDP (Billions of dollars)	17,197	17,975	18,924	19,889	20,788	21,686	22,618	23,577	24,565	25,581	26,622

Source: Congressional Budget Office.

Note: PCE = personal consumption expenditures; GDP = gross domestic product.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industries.

d. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.



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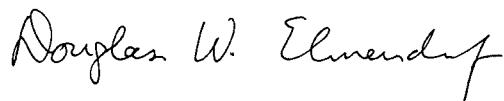
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## About This Document

This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office (CBO) issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Rosanne Altshuler, Alan J. Auerbach, Raj Chetty, Steven J. Davis, Roger W. Ferguson, Jr., Claudia Goldin, Robert E. Hall, Jan Hatzius, Simon Johnson, Anil Kashyap, Lawrence Katz, Donald Kohn, N. Gregory Mankiw, Adam S. Posen, James Poterba, Joel Prakken, Valerie A. Ramey, Carmen M. Reinhart, Brian Sack, Robert Shimer, and Mark Zandi. Davide Furceri, Andrea Pescatori, and Justin Wolfers attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

The CBO staff members who contributed to this report—by preparing the economic, revenue, and spending projections; writing the report; reviewing, editing, and publishing it; compiling the supplemental materials posted along with it on CBO's website ([www.cbo.gov/publication/45653](http://www.cbo.gov/publication/45653)); and providing other support—are listed on the following pages.



Douglas W. Elmendorf  
Director

August 2014

## Economic Projections

The economic projections were prepared by the Macroeconomic Analysis Division, with contributions from analysts in other divisions. That work was supervised by Wendy Edelberg, Kim Kowalewski, Robert Arnold, and Benjamin Page.

Alexander Arnon	Housing, research assistance
David Brauer	Inflation, labor markets
Lauren Bresnahan	Inflation
Gabriel Ehrlich	Interest rates, monetary policy, house prices
Daniel Fried	Net exports, exchange rates, energy prices
Ronald Gecan	Energy prices
Mark Lasky	Business investment, housing
Leah Loversky	Motor vehicle sector, model and data management
Frank Russek	Federal, state, and local government spending and revenues
Robert Shackleton	Potential output, productivity
Christopher Williams	Consumer spending, incomes

## Revenue Projections

The revenue projections were prepared by the Tax Analysis Division, supervised by David Weiner, Mark Booth, and Janet Holtzblatt. In addition, the staff of the Joint Committee on Taxation provided valuable assistance.

Paul Burnham	Retirement income
Barbara Edwards	Federal Reserve System earnings, customs duties, miscellaneous receipts, payroll taxes
Nathaniel Frentz	Miscellaneous receipts
Jennifer Gravelle	International taxation, depreciation
Pamela Greene	Corporate income taxes
Edward Harris	Individual income taxes, payroll taxes, tax modeling
Robert McClelland	Capital gains realizations
Shannon Mok	Estate and gift taxes, refundable tax credits
Kevin Perese	Tax modeling, Federal Reserve System earnings
Kurt Seibert	Payroll taxes, refundable tax credits, depreciation, tax modeling
Joshua Shakin	Individual income taxes, refundable tax credits
Logan Timmerhoff	Excise taxes
Marvin Ward	Tax modeling

## Spending Projections

The spending projections were prepared by the Budget Analysis Division, with contributions from analysts in other divisions; that work was supervised by Peter Fontaine, Theresa Gullo, Holly Harvey, Janet Airis, Tom Bradley, Kim Cawley, Jean Hearne (formerly of CBO), Jeffrey Holland, Sarah Jennings, and Sam Papenfuss of the Budget Analysis Division, as well as by Jessica Banthin of the Health, Retirement, and Long-Term Analysis Division and Damien Moore of the Financial Analysis Division.

### *Defense, International Affairs, and Veterans' Affairs*

Kent Christensen	Defense (projections, working capital funds, procurement, scorekeeping)
Sunita D'Monte	International affairs
Ann Futrell	Veterans' health care, international food assistance
Raymond Hall	Defense (research and development, stockpile sales, atomic energy, other programs)
William Ma	Veterans' readjustment benefits, reservists' education benefits
David Newman	Defense (military construction and family housing, military activities in Afghanistan), veterans' housing
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military retirement, military health care
Jason Wheelock	Defense (operation and maintenance, compensation for radiation exposure, compensation for energy employees' occupational illness, other programs)
Dwayne Wright	Veterans' compensation and pensions

### *Health*

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Stephanie Cameron	Medicare, Public Health Service
Julia Christensen	Food and Drug Administration, prescription drugs
Katherine Fritzsche	Health insurance exchanges, other programs
Lori Housman	Medicare
Paul Masi	Medicare, Federal Employees Health Benefits program
Sarah Masi	Health insurance exchanges, other programs
Jamease Miles	Medicare, Public Health Service
Andrea Noda	Medicaid prescription drugs, long-term care, Public Health Service
Lisa Ramirez-Branum	Medicaid, health insurance coverage, Public Health Service
Lara Robillard	Medicare

*Health (Continued)*

Robert Stewart	Medicaid, Children's Health Insurance Program, Indian Health Service
Santiago Vallinas	Medicare, Public Health Service
Ellen Werble	Prescription drugs, Public Health Service
Rebecca Yip	Medicare Part D, prescription drugs

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Chad Chirico	Housing assistance, Fannie Mae and Freddie Mac, Troubled Asset Relief Program, Pension Benefit Guaranty Corporation
Sheila Dacey	Old-Age and Survivors Insurance, Social Security trust funds, Pension Benefit Guaranty Corporation
Elizabeth Cove Delisle	Social Services Block Grant, Children and Families Services, child nutrition and other nutrition programs
Kathleen FitzGerald	Supplemental Nutrition Assistance Program and other nutrition programs
Justin Humphrey	Elementary and secondary education, Pell grants, student loans
Deborah Kalcevic	Student loans, higher education
David Rafferty	Temporary Assistance for Needy Families, Child Support Enforcement, foster care, child care programs, Low Income Home Energy Assistance Program, refugee assistance
Emily Stern	Disability Insurance, Supplemental Security Income

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Kathleen Gramp	Energy, Outer Continental Shelf receipts, spectrum auction receipts
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Jeff LaFave	Conservation and land management, other natural resources
James Langley	Agriculture

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Interest on the public debt

Joanna Capps

Appropriation bills (Labor, Health and Human Services, and Education; State and Foreign Operations)

Gabriel Ehrlich

Fannie Mae and Freddie Mac, Federal Housing Administration

Mary Froehlich

Computer support

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Troubled Asset Relief Program, automatic budget enforcement and sequestration, other interest

Amber Marcellino

Federal civilian retirement, historical data

Virginia Myers

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Jeffrey Perry

Fannie Mae and Freddie Mac, Federal Housing Administration

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Fannie Mae and Freddie Mac, Federal Housing Administration

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Appropriation bills (Agriculture and Food and Drug Administration; Defense)

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## **Writing**

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## **Review, Editing, and Publishing**

Jeffrey Kling and Robert Sunshine reviewed the report. The editing and publishing of the report were handled by CBO’s editing and publishing group, supervised by John Skeen, and the agency’s web team, supervised by Deborah Kiltroe.

Loretta Lettner and John Skeen edited the report, and Maureen Costantino and Jeanine Rees prepared it for publication. Robert Dean, Annette Kalicki, Adam Russell, and Simone Thomas published the report on the agency’s website.

Leah Loversky and Logan Timmerhoff compiled supplemental economic and tax data—posted with this report on the agency’s website. Jeanine Rees and Simone Thomas coordinated the presentation of those and other supplemental materials.

